For the past 50 years, Bing Nursery School has been steadfast in providing an exemplary early childhood educational experience that is play-based and child-centered. We have been and always will be fundamentally committed to supporting children’s growing sense of self, as they explore and discover the world around them. We are also dedicated to serving as a living laboratory for research, and for supporting and providing undergraduate education at Stanford University.

Much of our golden anniversary year has celebrated this history and reflected on its significance. Looking back at how educational theory has been put into practice at Bing provides powerful direction for our course going forward.

In 1966, with a grant from the National Science Foundation and with a matching gift from Dr. Peter Bing and his mother, Anna Bing Arnold, Bing Nursery School was founded. For both Robert Sears, then dean of Humanities and Sciences, and Edith Dowley, the founding director, this was a dream come true. Sears strongly saw the value of having a laboratory school on campus for the Department of Psychology to conduct research. Dowley was equally passionate about her vision of exactly what a laboratory school should look like and how it should be run, based on her experiences at the University of Michigan and the Kaiser Shipyards during the war and as the Director of the Stanford Village Nursery School.

Dowley saw the mission of the school as fitting together with the aforementioned integral components seamlessly. Early in her career she presciently wrote that, “Unless a nursery school is truly a good place for children, it cannot be a good place for student or parent-learning or for research.” More importantly, the classroom practice, the research, the Stanford undergraduates and the Bing parents all contribute to our understanding of child development and show us that young children learn best through play. For young children, play is learning and learning is play; they are interchangeable, and this has been a fundamental truth since our inception.

In designing the classroom environments, Dr. Dowley worked closely with the architects, making sure that every element supported a child’s cognitive, social, emotional and physical selves. She sat on the floor with architects and used unit blocks to demonstrate her
The celebrations of Bing Nursery School's 50th anniversary began with an endowment kickoff breakfast featuring guest speaker and Bing parent Marissa Mayer, CEO of Yahoo. Mayer shared her thoughts about how children's experiences at Bing relate to innovation, beginning with the idea that play-based education promotes creativity by allowing exploration of possibilities within constraints. She then examined how each of Bing's three founding principles—treating children as honored guests, the gift of time and freedom of movement—promote innovation. Treating children as honored guests can apply to the business world by transforming into the attitude that everyone has potentially good ideas and that different perspectives are valuable. The gift of time allows for exploration of new things, working together, making mistakes and finding solutions. "When you try something that you are not really ready for," Mayer asserted, "is when you experience the greatest growth." Freedom of movement embodies the idea that curiosity is never finished. Recognizing the important role of research at Bing, Mayer noted that innovation often involves data-driven decisions. Innovators try to find better solutions, questioning the norm, trying out new ideas and learning from experience. Mayer ended by noting the scale of impact that innovators must consider. With great scale comes great responsibility and great opportunity to impact people's lives. Over the last 50 years, Bing has had the responsibility and opportunity to impact thousands of lives.

Four Bing alumni reflected on how their experiences at Bing have shaped their interests. Miles Seiver, '97, remembered that he had the freedom to fully explore and test things out at Bing, which he continues to utilize in his work on computing. Audrey Proulx, '97, who released her debut pop album in 2015, traced her love of music and singing back to her early childhood years at Bing. Armando Martinez Machado, '72, who attended Bing as a child, later brought his two sons to Bing when he was pursuing his doctorate at Stanford, just as his own father had. He saw that Bing fostered the same traits in them that brought him to Stanford—"the invasive mind, the need for understanding, the love for learning and ability to work with a diverse group of people." His elder son, Armando Martinez-Stone, '02, traced his first encounter with the scientific method back to his nursery school days when "being passionate about something as simple as worms can launch a full-fledged scientific investigation." —Adrienne Lomangino, Head Teacher
Today Bing continues to be a center for leading-edge research, which in turn informs our teaching practice. Our play-based program encourages children to pursue interests that they find intrinsically motivating. Every day, teachers provide feedback to children that fosters a growth mindset. They consider children’s developing theories of mind when supporting peer interactions. Our teachers listen, model and plan curriculum to support children’s language development.

Many of Stanford’s brilliant scholars in psychology and linguistics have influenced and continue to influence our practice at Bing and the field of early childhood education around the world. Their work has shaped the fields of developmental psychology, social psychology and linguistics and advanced our understanding in important areas such as metacognition, social learning theory and motivation to name a few. (See sidebar on research symposium.)

We are often asked, “How has Bing changed in the past 50 years?” One of the most exciting changes has been the renovation of the Tower House, which sits adjacent to the school. The 1989 earthquake had left the building unusable for two decades. However, with a generous gift from Helen and Peter Bing and the Arrillaga family, this historic building has been renovated and brought back to its glory (early in its history it served as a schoolhouse). This has enabled us to expand our parent and educator programs as well as provide beautiful and functional work and conference spaces for our teachers. Many visitors and students who understand the philosophy of the school have recounted that they too are treated as “honored guests” when they have the opportunity to study and work at the Tower House.

A very visible change has been the increase of our staff to six teachers per teaching team, with over half of our teachers holding a master’s degree or working toward one. For perspective, when Bing opened its doors in 1966, there was an enrollment of 325 with 12 full-time staff assisted by graduate and undergraduate students. Today we have 464 children and a staff of 47, consisting of some of the most qualified, experienced and dedicated teachers in the field of early childhood education. In addition, many Stanford graduate and undergraduate students participate in the classroom through one of the courses offered at Bing or through conducting research here.

We continue to enhance our outdoor environments: In the past few years all of our outdoor areas have been renovated and upgraded. In each of our back classrooms we have added “thickets” (woven structures of willow branches) created on-site by the artist Kelly English. These unique structures have been popular with the children, inviting them to play and showing them the creative and artistic use of a natural material. And this August, with a vision and a generous donation by a Bing family, our atrium and entry walkway have been completely renovated, creating an inviting central space that includes a spectacular Japanese maple in the center and stone benches on the perimeter. In addition to being a gathering space for families before the doors of the classroom open, we envision many children’s sing-alongs and activities in this welcoming new space.

**BING’S 50TH ANNIVERSARY EVENTS**

**EDITH DOWLEY AND THE HISTORY OF BING SCHOOL • MARCH 2, 2016**

_Hosted in partnership with the Stanford Historical Society, the second anniversary event was a presentation by author and former Bing parent Christine VanDeVelde—“How the Grandest Child-Care Experiment in American History Inspired Edith Dowley and Shaped Bing Nursery School.” The presentation traced the formative experiences of Bing Nursery School’s founding director, Edith Dowley: the time in history she inhabited; the influences of her family; her education at Merrill Palmer Institute and the University of Michigan; and her work at the remarkable child-care centers of the Kaiser Shipyards during World War II. Those experiences informed Dowley’s vision of the ideal early childhood program, and Bing, as VanDeVelde noted, was the result—the culmination of that “carefully constructed world view.” Dowley’s thoughtful appreciation and respect for children was front and center in her story. “There was no human being who was outside her realm of caring.”_

Using photographs and a deep dive into the history, VanDeVelde brought to life the remarkable child-care centers of the Kaiser Shipyards that provided care for thousands of children whose mothers were building the “bridge of ships” that supplied the American armed forces fighting on the fronts. Directed by Lois Meek Stolz (who later joined the Stanford Department of Psychology faculty in 1944), with James Hymes serving as the on-site overseer in Portland, Oregon, the centers were cutting-edge examples of early childhood education. Dowley, hired as a teacher and supervisor, took to heart the impressive attention to detail, the quest for the highest quality in every aspect of the project, the outstanding innovation and groundbreaking design of the project. She brought to Stanford that dedication to a program rooted in play, the hallmark of which was thoughtful attention to and respect for the needs of children. The result was Bing Nursery School, grounded to this day in the principles Dowley developed and cultivated: offer freedom of movement, treat the child as an honored guest and give the gift of time. — Adrienne Lomangino, Head Teacher_
We are cognizant that being exposed to music, dance and theatre can often lead to a lifetime of appreciation or participation in the arts. As such, we have instituted the Bing Nursery School Performance Series. Each quarter we present a performance held at either Dinkelspiel Auditorium or the Bing Concert Hall, and since its inception, the performances have been well received: All have sold out. This was a dream of former Bing parent Professor Jindong Cai and some of our dedicated staff, including Beth Wise and Chia-wa Yeh, and thanks to the annual financial support of very generous parents, it has become a magnificent reality enjoyed by many in the Bing community.

What remains the same at Bing? What has not changed are the fundamental principles Dr. Dowley established 50 years ago—treating children as honored guests, giving them the gift of time and allowing them freedom of movement. These have not only stood the test of time, they’ve been shown to be exactly what is needed to best prepare young children for our rapidly changing world: to be inquisitive, confident, creative, flexible, collaborative and to develop a love of learning. These are the attributes that will be most important for our children to succeed.

What do we see for Bing in the next 50 years? None of us could have imagined 50 years ago what Bing would be like today and we can only envision the changes in the next 50 years. In a world that is ever-changing and with a pace of life that is ever-quickening, it remains our goal to continue giving young children the best possible start to their educational journey and to prepare them for the life that lies ahead.

Our first half-century has shown us that play provides young children the best opportunity to learn: It is through play that young children actually make sense of their world and develop. To give them the best possible start in life, we need to hold firm to their right to play. Bing Nursery School is a child-centered, play-based school that was founded to be a model program for young children, and we remain committed to our founding philosophy and practice.

Perhaps Soviet psychologist Lev Vygotsky (1896–1934) said it best: “In play a child always behaves beyond his average age, above his daily behavior; in play, it is as though he were a head taller than himself.”

BING’S 50TH ANNIVERSARY EVENTS
RESEARCH SYMPOSIUM: CELEBRATING 50 YEARS OF RESEARCH AT BING NURSERY SCHOOL
APRIL 17, 2016 PANEL CONVERSATION

The 50th Anniversary Research Symposium began with a panel conversation with three prestigious emeriti faculty, Eleanor Maccoby (Barbara Kimball Browning Professor Emerita), Mark Lepper (Albert Ray Lang Professor of Psychology Emeritus), and John Flavell, moderated by associate professor of psychology Michael Frank. Maccoby and Lepper shared their memories of Bing’s earliest days, including the effort to secure funding from the National Science Foundation and the vision for the school set out by Edith Dowley, the founding director. Lepper commented on the “ingenious way” in which Robert Sears, Eleanor Maccoby and Albert Bandura raised money from the National Science Foundation. They applied for funding intended for “infrastructure,” which typically means shared equipment. He noted that nobody anticipated anyone making the argument that a nursery school belonged in this same class of requests. But it fit the definition: It was necessary to do their work, would be used by many research scientists and would advance scientific understanding.

John Flavell, Anne T. and Robert M. Bass Professor Emeritus in the School of Humanities and Sciences, who joined the faculty when Bing was already founded, described the focus of his research at Bing, where he collected data for two decades with researchers Francie Green and his wife, Ellie Flavell. His work has focused on elucidating children’s metacognition, a term that he coined with psychologist Anne Brown. Metacognition, Flavell explained, pertains to one’s knowledge of the mind, “what goes on there, how it works. Not neuroscientifically, but from the experiential standpoint of the person.” Later, he explored children’s understanding of ongoing mental experiences and their ability to control their own thinking, particularly to stop or refrain from thinking. Flavell views this work, examining mental experiences and awareness, as central to answering questions about what it means to be a person and what it is like to be a person.

Eleanor Maccoby described her work with psychologist Carol Jacklin examining and questioning the extent of gender differences. She subsequently did longitudinal work, starting from early infancy, focusing on how parent and child influence each other during interaction. As the children got older, the focus switched to peer interactions and influence of peers, illuminating ways that children’s interactions differed in same-sex and mixed-sex pairings.

From left: moderator Michael Frank; panel participants Eleanor Maccoby, Mark Lepper, John Flavell.

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Perhaps Soviet psychologist Lev Vygotsky (1896–1934) said it best: “In play a child always behaves beyond his average age, above his daily behavior; in play, it is as though he were a head taller than himself.”
Carol Dweck, the Lewis and Virginia Eaton Professor of Psychology, described her work as a response to the question, “What happens between infancy and later school years that leads to loss of interest and motivation?” She has studied children’s developing beliefs about their talents and abilities. Some of them conclude that their talents and abilities are fixed traits that they have in a set amount. This view makes them afraid of taking on challenges or failing, and limits their achievement. Others view their talents and abilities as something that they can grow and develop. With this growth mindset, learners take on challenges and stick to them, because that’s how you get smarter. Through her research with young children, Dweck has found that they are not free and protected from self-doubts, as had previously been assumed. She also found that adults can promote a growth mindset. They can give “process praise” (for example, praising children for their strategies, focus, hard work and persistence), respond positively to their struggles or difficulties and by valuing struggles.

More recently, Clark examined how parental use of gestures and words during interactions shapes children’s learning of both parts/properties of objects and actions/functions of objects. When they talk about parts/properties, parents use indicating gestures (point, tap, touch) to show the part they are talking about (e.g., touching the stripes on a tiger). When they talk about actions/functions, parents use demonstrating gestures, manipulating the object to show how it works while describing it (e.g., making a toy alligator bite the child’s finger to show how its mouth moves). Subsequent work focused on children’s coining of new terms, where they transform words they already know into another form: “A sweeper is someone who sweeps.” She found three rules children use when coin ing terms: Simplicity—they make as few changes as possible, transparency—they use words that they know as the base for new words (e.g., someone who uses a broom is a broom er) and adult usage—the word patterns in adult speech.

Eve Clark, the Richard W. Lyman Professor in the Humanities, has conducted research at Bing for over 40 years, giving her a large body of work to draw upon. As an example of how children develop conceptual categories through experiences in the world and the adult use of words, Clark outlined her study of children’s developing understanding of the prepositions in, on and under. Subsequent work focused on children’s coining of new terms, where they transform words they already know into another form: “A sweeper is someone who sweeps.” She found three rules children use when coin ing terms: Simplicity—they make as few changes as possible, transparency—they use words that they know as the base for new words (e.g., someone who uses a broom is a broom er) and adult usage—the word patterns in adult speech.

As the concluding presenter, associate professor of psychology Jeanne Tsai shared her investigations of cultural differences in people’s emotions, highlighting the distinction between how people want to feel (ideal affect) and how they actually feel (actual affect). Tsai conducted work at Bing to examine whether differences in ideal affect were discernible in early childhood. She found notable differences, with European-American children showing a greater preference for exciting (vs. calming) states compared to Taiwanese children, with Asian-American children responding in the middle. She also found evidence that children’s ideal affect relates to their preferred playmate. When asked if they would most like to play with another child who showed excited, calm or neutral expressions in photographs, Japanese and Asian-American children were less likely than European-American children to choose the excited child. Her findings highlight how culture influences how we want to feel and the social choices we make fairly early in life.

Michael Frank described the complex reasoning processes and inferential thinking involved in children’s understanding of language. His work examines how children learn from what isn’t said as much as from what is, by making pragmatic inferences. Pragmatic inferences are inferences based on what was said and the context in which it was said—not only what they did say, but what they didn’t say, given the possibilities. (As an example, Frank noted that if we hear someone say, “I ate some of the cookies,” we make the inference that the person did not eat all of the cookies.) Over the preschool period (3–4 years of age), children get increasingly good at making inferences about what a speaker is referring to, based on what information is both included and not included. They learn both new labels for objects and characteristics of objects by making inferences about what the speaker is referring to in situations presented to them. Frank concluded, “Children are learning about the world all the time this way—not only from what we explicitly tell them, but by gleaning our expectations from what we say as well.” — Adrienne Lomangino, Head Teacher

Video of the research symposium is available at bingschool.stanford.edu/bing50video. More information about the panelists and speakers is available at bingschool.stanford.edu/events/research-symposium.
**Bing’s 50th Anniversary Events**

**Anniversary Celebration at Bing • June 4, 2016**

Bing Nursery School culminated its 50th anniversary events with a party for children, alumni, current and former parents, undergraduate students and researchers. Before the party, about 60 former Bing teachers joined with current teachers for a reunion luncheon in the Tower House.

At the party, displays arranged in the atrium and multipurpose room highlighted the history, philosophy and curriculum of the school. Banners tracing the history of Bing ringed the atrium while posters in the atrium’s center illuminated the basic, open-ended materials—blocks, clay, paint, water and sand—used in play at Bing, the outdoor environment and the value of pretend play. In each of the game rooms, posters giving brief explanations of research were on display and a researcher was there to talk about the work with guests.

The multi-purpose room included a display of historical artifacts, including print materials about Bing and play materials. Guests could also take in an art installation created by Jung Eun Lee, a former Bing parent. The installation features a wound-up rag ball of 3,469 inches of recycled strips of Lee’s daughters’ outgrown clothes, the distance her daughter walked in one afternoon at Bing. Also available was a commemorative video including audio of Dr. Edith Dowley reflecting on the design of Bing’s environment and the school’s philosophy and a montage of archival photos from Stanford Village Nursery School through Bing’s construction to current years. – Adrienne Lomangino, Head Teacher

The commemorative video is available at bingschool.stanford.edu/bing50video.

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**Research**

**Researcher in Profile: Ellie Chestnut on Children’s Sensitivity to Word Orders**

By Chia-wa Yeh, Head Teacher and Research Coordinator

Are horses like zebras or are zebras like horses? Can girls do math as well as boys or vice versa? How does the order of the nouns communicate information to adults and children?

Ellie Chestnut, a 5th-year graduate student in developmental psychology at Stanford, has been investigating what message is being inferred as people hear sentences like “Girls can do math as well as boys.” While the speaker may intend to promote gender equality, the sentence may imply the opposite, thus unwittingly affirming the prevailing bias that girls are less skilled in math than boys. (Research has shown that there is no gender difference in math abilities.)

The psychology of language—how language interacts with cognition, how the way we talk about the world can influence how we think about it—is at the heart of Chestnut’s research. She has conducted research at Bing over the past four years; approximately 400 children have participated in her studies.

Chestnut grew up in Montclair, New Jersey, with her parents and older brother and has long been interested in language, having studied Spanish and Hebrew throughout her school years and Latin in high school. She graduated from Pomona College with a B.A. in linguistics and cognitive science. After college, she worked for David Barner at the University of California, San Diego, Language and Development Lab for two years before coming to Stanford to pursue a doctorate. Chestnut loves sports and played soccer and softball for 10 years growing up and was on the track and field team competing in the javelin and hammer throws in college.

Following is an interview with Chestnut about her research.
What is the topic of your investigation?

Over the past four years, my advisor, Professor Ellen Markman, and I have investigated the ways individuals implicitly communicate information through language. Specifically, I have focused on the way the framing of a sentence can shape the sentence’s meaning. For instance, adults strongly prefer to say “The bike is next to the building” rather than “The building is next to the bike,” or “A zebra is like a horse” rather than “A horse is like a zebra.” But these statements involve symmetrical predicates—if a bike is next to a building, then a building is also next to a bike. So why should adults have these preferences? One proposal is that the subject position of sentences is for less typical, less prominent items, while the complement position is for more typical, more prominent items, hence serving as a reference point. So, adults prefer to say “A zebra is like a horse” because we usually think of horses as the more typical, well-known animal.

In addition to reflecting our beliefs about the relative typicality and prominence of items, sentence structure may also teach a listener about these features. For example, upon hearing, “A blicket is like a toma”—a sentence with two made-up words—adults will infer that the toma is more important than the blicket. So, I have been interested in whether children are also sensitive to the implications of word order, and whether they also assume that the item in the complement position is more typical and important than the item in the subject position.

Tell us about the studies you conducted at Bing.

In my studies at Bing, I would introduce 4- and 5-year-olds to a puppet named Bart that is from a different planet and speaks an alien language. I would then ask the children to help me figure out what the puppet’s words meant. For example, I would show children a picture of a zebra and a horse while the puppet said “A blicket is like a toma.” Children were asked to figure out what the puppet’s words meant by pointing to the blicket in the picture and then pointing to the toma. From this, we could infer whether children would prefer to say “A zebra is like a horse” or “A horse is like a zebra.” We found that children, like adults, prefer to compare less typical things (e.g., zebras) to more typical things (e.g., horses), suggesting that they, too, are sensitive to the implications of word order in these kinds of statements. The results of this series of studies is published in the journal Child Development this year in the March/April issue.

What are your next steps?

We are planning to investigate whether children make inferences about gender categories (i.e., girls and boys) from the way statements of equivalent ability are framed. Here, the puppet will tell the child about girls and boys from his planet. He will say sentences like, “Boys are as good as girls at snapping,” and then we will ask the child to identify who likes snapping more, who does snapping more, or even who is naturally better at snapping. If being typically good at an activity means doing the activity more and being naturally better at it, then the second gender mentioned in the statement (here, girls) should be associated with these features.

What got you interested in studying implicit messages about boys’ and girls’ abilities?

I’ve always been interested in how we implicitly communicate norms and biases, especially about gender. We use male generics in language all the time (e.g., mankind), but what several studies have shown is that these kinds of words frame maleness as the norm, or typical gender. In fact, whenever “he” is used generically, people often assume that it refers only to men, and not to women, despite the intention of the speaker.

I think that there are many ways in which we implicitly communicate differences in status or typicality between genders, and I think that these are particularly important topics to investigate because they might really undermine our efforts to promote gender equality in society.

What would you suggest parents say to their children to promote true gender equality?

Honestly, I think that gender should be left out of domains where it’s not actually relevant. In academia, for example, we are finding time and again that there are no gender differences in math ability. So why do we keep bringing up gender when it’s not relevant? It could be that the mere act of talking about gender makes it a relevant and salient way of categorizing people for children, and could, in fact, suggest to them that there are gender differences in these domains—otherwise, why would we mention it?

Do you have any anecdotes you’d like to share about doing research at Bing?

Oh, a ton. But if I had to choose a “best” moment, it was when a 7-year-old child actually recognized me while I was collecting data at a local museum. I hadn’t seen her since she was 4—so three years had passed. She came up to me while I was recruiting parents to have their child participate in the study and said, “Hi, did you used to go to Bing?” She then asked if I was still playing games with my puppet, which I was. I couldn’t believe it, but it really showed the lasting impression teachers at Bing can have on their students.

Ellie Chestnut, a doctoral student in psychology, conducts her research.
Sensory Exploration with Paint in the Twos

By Mary Munday, Head Teacher

We’re painting with our hands! —Avni
You have to use your fingers to move the paint around. —Beckett
I’m finger painting, but my elbows are getting paint, too! —Brin

Children in the MWF AM Twos classroom take an interest in painting every year, but this past year their interest was especially high—particularly when they could paint with their fingers.

Beginning in the fall, teachers set up painting activities indoors and outdoors. Every day, children engaged in table activities with small brushes, large brushes, rollers and various paint mediums. They worked at easels both indoors and outdoors, using colors chosen to represent hues seen in the environment. Their interest in painting was apparent from the abundance of artwork waiting to go home at the end of each day.

The teaching team noticed the painters occasionally painted their own hands with the brushes, exploring paint on a sensory level, so we decided it was time to explore finger painting. We tried this in the beginning of the year on a large circular table. Teachers placed primary colors directly on the table for the children to explore. As only a few came to try the activity, we quickly realized that although the table was great for large body movement, due to the darker wood, the colors were not very vibrant or visually engaging.

We revisited this painting experience in the winter with a new set-up. We brought in two light wood rectangular tables from outside to create a long banquet-style table and squirted lines of fingerpaint on the table in two primary colors. A teacher sat nearby letting the children know that they could paint with their fingers. The first participant asked for a paintbrush. A teacher gave him a few choices of brushes and he picked a small brush about the size of his finger with a medium-length handle. He placed the brush on the table and moved it around in the paint slowly. Another child approached the paint and quickly put her hands in the medium and began swirling the paint, mixing yellow and blue together. “Look! I made green!” The child holding the brush then let the teacher know he was done using it. He observed for a few more minutes and then carefully placed one finger into the paint and swirled it around. Soon, he had both hands in the paint swirling side by side and all across the long table stating “I made green, too!” More children approached the table. Some chose to observe and some jumped right into the activity, mixing colors and using the large table space to explore whole body movements while spreading the paint.

The teachers were eager to see where this would go. Would the same children continue to return? Would children who observed a few times eventually participate? We continued this activity for many weeks. Week one, we offered the sensory exploration right on the table. We continued this into week two and noticed more children became interested in the activity. The following week, we covered the table with foil to create a different experience for the painters: The feel was still smooth, but the surface was mirror-like and cooler to the touch. Following this, we added bubble wrap on one length of the table and foil on the other side. This encouraged language development as the children discovered the bubble wrap was “bumpy” and the foil was “smooth.” Children painting on the bubble wrap tended to stay in one section of the table, poking the bubbles. An occasional pop was met with laughter as they realized the bubbles could potentially pop. Children moved in larger and longer movements across the foil as they explored the smooth, cool, shiny material. At the end of the final week, teachers offered paper so the children could make prints of their designs and see how the bubbles and the lines through foil looked on paper. “I made circles!” “I made mommy!” “I made pink!” “I made purple!”

The process of finger painting soothes young children. The pleasant feeling of painting with hands and exploring different textures and mark-making skills is fun, creative, and helps to develop both physical and social skills. Some children dove right into the activity while others observed first. Having the material available over the course of many weeks gave children the gift of time to explore the material in different ways and at a deeper level.

Finger painting encourages fine motor development and eye-hand coordination. The set-up of our project, on a very large table, encouraged full body movements, which used skills of balance and large muscle control while developing spatial awareness. As children revisited this activity, many conversations ensued regarding color mixing, shapes, lines and textures. Through this tactile experience, children conveyed ideas, expressed emotions, used their senses, explored color, explored process and outcomes and most of all, had a pleasing experience.

Related: Video available at youtu.be/9H5AntjxOIM
The Emergence of Social Play in the 2-Year-Old Classroom

By Betsy Koning and Nandini Bhattacharjya, Head Teachers

The age of two to three is a period of dramatic growth. As children this age come to school and interact with peers through open-ended play in a group environment, they build foundational social skills that are vital throughout their lives.

In the Twos program, classroom activities and materials often provide the first means to bring the children together in interactions. As the 2-year-olds begin to experiment with basic and open-ended materials, discovering the properties of sand, water, paint and play dough, they work in close proximity and learn to share space and resources. They begin to take note of how other children use materials and thereby expand their own repertoire for using equipment and supplies.

Often a 2-year-old’s first reciprocal social interactions are with a teacher. Some children have previously participated in adult-led group activities such as games—and in these situations the presence of a familiar adult creates a feeling of security and comfort. At Bing, the teachers become the familiar adults and provide a sense of sanctuary among the many variables they experience at school. The teacher then acts as a social bridge between children, their peers and other adults. This familiar adult models how to interact with others, including ways to join a game, ask for materials or state that they are still using the material but others can have a turn when they are done.

As the 2-year-olds acquire more social language and a basic understanding of symbolism, they start to engage in pretend play, which inspires more social interaction. Props provided in the classroom encourage the children to come together to play out familiar activities like riding on a train or cooking and eating a meal. These types of common experiences provide a body of shared knowledge that the children can build on together. As one child pretends to perform or talks about an action like buckling their seatbelt or serving snacks in the context of dramatic play, others join in pretending to perform this action too and adding ideas of their own. This is one of the first stages of social play.

In the beginning, these interactions may manifest themselves as parallel play—children often engage in the same activity in close proximity without direct physical or verbal interaction and then begin to note what one another are doing.

When children participate in these interactions, teachers’ modeling and narration help them learn one another’s names, preferences and play styles. They begin to initiate contact by greeting each other by name, seeking out certain playmates and inviting them to join in games they have played together previously. For instance, as two children approached a play set-up with two toy steering wheels with rows of small chairs lined up behind them, they looked around for others who could join them in going on a trip. “Whooo! Whooo!” called Miles as he slid into the driver’s seat. “All aboard! Who’s going to ride the train?” Nearby children heard his call and clambered into the empty seats, pretending to hand the conductor leaf “tickets,” stow their belongings and fasten their seatbelts while calling, “Everybody, buckle up!”

In this example, turns with the two steering wheels were in high demand—a state of affairs that gave teachers a chance to help the children build social problem-solving skills. The children at the wheels became aware of others waiting, and they experienced the need to be patient once their turn was over. Children who hadn’t been at the wheel yet learned to ask for a turn and wait for their chance to drive. This activity helped bring the needs and wants of their peers to their attention and fostered the beginnings of empathy.

Even at this young age, children can act with empathy. For example, a particular dress-up item—a vest covered with pictures of construction vehicles—was a big favorite of one of the children. Frequently when other children saw the vest hanging among the dress-up clothes, they would bring it to the child who they knew enjoyed it so much. She was always pleased to receive it and reinforced this action by saying thank you and displaying obvious pleasure at its receipt.

As children gain more skills and awareness, their pretend play becomes more elaborate and continues for longer periods of time. They return to previous play themes, adding more characters and details. For example, in the train set-up play, the children found short wooden planks to serve as their seatbelts. Also, the driver asked passengers where they wanted to go and pretended to stop at different stations, such as the park or ice cream shop. As the players become well versed in the game, it’s easier to include more people and expand the storyline. Furthermore, they incorporate the familiar materials in the classroom into their play in order to represent their more intricate ideas. For instance, they might use small redwood cones and blocks as food, or a short stick as a key to start the engine.

Throughout the school year, different play styles emerge. Initially, children choose roles they are comfortable in. Then they may slowly branch out and experiment trying new parts in the game. Some may be generating ideas, some may collect materials, some may try to recruit other players and some may carefully observe the play. All these roles are an important part of play and of the child’s social development.
Cameras in the Early Childhood Classroom: A Powerful Tool for Documentation and Reflection

By Nancy Howe, Head Teacher

If you want to photograph a man spinning, give some thought to why he spins. Understanding for a photographer is as important as the equipment he uses.

—Margaret Bourke-White, photojournalist

Cameras are an important and powerful tool to deepen Bing Nursery School teachers’ understanding of children and their development. Teachers use them to document children’s experiences at school such as their engagement with one another and with teachers, their curiosity about the natural world and their creative exploration and discoveries using open-ended materials.

A photograph can also encourage reflection. Photography allows teachers to measure milestones or skills mastered, to better understand challenges and to provide insight into the process of each child’s growth and competency. Through photographic images, teachers develop a deeper understanding of what children are doing and why it is meaningful to them and are able to interpret to parents what children are learning.

In addition to documentation and reflection, teachers use photographic images of children for many other purposes: to construct a bulletin board display of the ongoing progress of a long-term classroom project, create innovative curriculum materials, represent children’s growth and development as part of a child’s portfolio at parent conferences, open a window into the classroom through slideshows or newsletters and illustrate presentations at professional conferences.

“Kodak moments” or sentimental snapshots are wonderful, but Bing teachers do not ask children to say “cheese” or smile: Our interest is in documenting children’s authentic interactions with one another and deep engagement with open-ended materials and the natural world.

The photographs taken by Bing teachers have the ability to “draw parents in and help them better understand their child,” said photographer and former Bing parent Christina Vervitsioti-Missoffe.

In preparation for autumn quarter and the beginning of a year celebrating Bing’s 50th anniversary, Bing staff produced a photo display, “Image of the Child,” to help articulate our play-based philosophy. For the display, teachers selected photographs of a child or a group of children and wrote brief explanations about the images they chose. Head teacher Colin Johnson explains, “The exercise revealed profound assumptions that we make about how children view their surroundings, how they interact with and learn from the environment, how they are inherently and fundamentally competent, intentional, and that they live in the moment. The lens with which we view young children underscores the actions we take to support their development and contributes a great deal to what makes Bing such a special place.”

Several weeks later, teachers invited the children to share their unique perspectives through photographs. A designated “children’s camera” was given to each
classroom. Children were encouraged to take as many pictures as they wanted throughout the day. Teachers in Center PM sensed the children’s growing curiosity about cameras and decided to pursue a classroom project on photography. Putting cameras into the hands of children was an opportunity to reverse the role that adults and children have had about picture-taking. Center PM teachers printed out the images taken by the children: friends at play, teachers taking pictures of them taking pictures, grass and trees and sky, feet and hands, close-ups of dolls and trucks and familiar playthings, impressionistic swirling colors of the inside of a cup of paint. Some photographs were unintentionally but artfully blurry as a result of movement, others almost surreal in their point of view or subject matter.

Teachers in Center PM asked children what they knew about cameras and their theories about how cameras worked. Their responses:

It takes pictures. —Bella
You wear it around your neck. —Andrew
You look through a camera. —Noah

Some people pass by with a camera. They ask other people if they can take pictures. If they say “yes,” they do! —Nura
When it’s dark out, you need a bonfire for light. —Evie
It’s a lever inside of it and it pushes the lightbulb down and it flashes. Something holds the button and the button is snapped onto a light reflector and then every single time it flashes, it flashes on the film. —Xia

Children also explored cameras and drew them. Observational drawings invite children to be thoughtful observers, to notice details and to ask questions in order to further their understanding. Vintage cameras, both box and folding cameras with accordion bellows, were brought into the classroom for children to draw. The children took note of each camera’s shape and its various components and their functions: the lens, shutter, film-winding knob, picture-taking button and viewing window. They were curious about what the camera looked like inside and what happened in the lens when they pushed the picture-taking button. By mounting their pictures of cameras on cardboard and adding a piece of string for a strap, the children were able to wear their “cameras” and pretend to take pictures. “Let’s go, Bella. Let’s take pictures outside!” said Madina.

Photographs taken by teachers throughout the year are used for reference and reflection in spring parent conferences as well as a visual complement to the summary of development that teachers give to parents at the end of the year.

Children’s cameras are still available in each classroom, and the photographs that children continue to take are being archived as a resource for future research, documentation or presentations to parents and early childhood educators.
Come Fly With Me…
By Parul Chandra, Head Teacher

The “Fly With Me” project began in winter quarter when children at the design table used paper, yarn, tape, feathers, pipe cleaners, recycled and other materials to create kites that ranged quite broadly in size, shape and color. Children delved into their imaginations for what a kite might look like: Some kites had tails and some didn’t, some were large and some small. The one thing that all the kites had in common was that they were intended to fly. Once children finished their kites, they would grab their creations and run up the hill and down with their flying objects. They were really trying to figure out the mechanics of flying. Questions arose: How do things fly? How can I make my project fly? Why do I have to run to make it fly? Soon they were designing rocket ships too.

Children are resilient and enjoy exploring possibilities, especially when faced with challenges. Teachers saw this happen over and over again during this project. Children would go out to test their flying objects, and most would return to the design table to modify or to make repairs to their work. It was interesting to watch and listen to how they talked to each other and offered suggestions to help fix their peers’ creations. A shared interest in flying objects was rapidly evolving in our class; there was a buzz about flying.

Over time, the project went from a small group of children interested in building kites and rocket ships to a classroom full of children investigating and learning about a multitude of flying objects and the mechanics of flight. The project grew to include extensive pretend play involving flying objects, woodworking to build a wide selection of flying objects, listening to readings about flying, observing and drawing model planes, a chance to see a drone in action and hearing from two visiting parent experts who answered detailed questions at a very stimulating story time.

One goal of Bing teachers is to create an environment that will foster children’s learning. Two of the many ways this is achieved are by having a rich trove of resources available to children and by giving children the time to use these resources. Given the interest in flying, teachers collected a variety of new materials such as paper towel rolls, cardboard and silver metallic paint and placed them throughout the classroom, indoors and outdoors. These materials served as provocations to spark children’s interest, and teachers watched as they excitedly collected materials from different areas, brought them to their own work stations and assembled them using tools like staplers, tape and glue. Some children modeled the use of these materials for those who were still developing skills. Children were motivated to tear tape and cut yarn and needed no encouragement because they were thrilled to build a flying object to take out and test. In this environment, children’s excitement around finding novel ways to use materials kept rekindling the spark in this project.

Wood was the most popular material used to make their machines. Children employed different shapes of wood, connecting them using hammers, nails and small pieces of peg board. A wide variety of airplanes, helicopters and rocket ships emerged. After some problem-solving and collaboration, children requested propellers and tails to add to their vehicles. With the help of our in-house woodworker, Gene Aiken, we drilled holes in wide craft sticks and glued them together to fulfill this request. Children designed, modified and decorated their flying machines at the woodworking table. Jordan shared, “When you spin it around the propeller, it flies. If it is broken it does not fly good. There is air in the jets and when it comes out, it blasts off. This is a button to blast off in space.” Leo announced, “It’s a spaceship and it flies to the galaxy in the months and the year, and when it shoots out candy and money and veggies and water and milk. And it flies in 10, 9, 8, 7, 6, 5, 4, 3, 2, 1 lift off.”

This project highlighted the importance of providing ample class time for children to investigate and be inspired. When they ran outside to test their flying objects, they would return to the classroom with the intent of modifying their design but would be attracted by the set-ups, such as model planes, propellers, rocket ships, books about flying and paper airplanes. Children would incorporate this new information into their plan for modifying their design. Teachers witnessed children’s mental processing as they took the time to examine their creations and the materials available to them.
Young children naturally increase their vocabulary and learn to articulate their thoughts. As they explored the concept of flying, the children enjoyed talking about it. They tested their theories, and they added to their ideas through discussions and trying out their flying objects.

Children even asked why people couldn’t fly. Many attempts to take flight involved flapping arms and jumping off logs. Some children wrapped scarves around their arms to create wings! Stephen finally declared to his peers, “You can fly only if we have astronaut suits. First you get on a rocket. Then you can land on Mars. Then an astronaut bursts out into space.”

Flying vocabulary, including words such as force field, cockpit, rudder, horizontal stabilizer, lift, thrust, wingspan, throttle, propellers and jets were used as they investigated further. They asked questions and created hypotheses just like scientists to test their theories about flight. Children told elaborate stories to accompany their work. Eventually, the children all agreed that wind, fire and wings are needed to fly. But not always. Will a plane with just a tail fly? Audrey commented on this, saying, “Only for a little bit—actually it won’t fly. You need a tail and wings. Rocket ships have fire in the bottom—blast off! They don’t have wings and tails.”

During the project, children engaged in pretend play relating to airplane flight, which helped them make sense of their world and experiences. Hugo was at the nest swing with Calli and Jordan. He was pretending the nest swing was an airplane, and that they were “flying to Hawaii and other places.” When children didn’t want to swing quickly, Hugo said, “Then we’ll never get there”—so we talked about how the plane will get there eventually, just slower. Hugo was the pilot, and children took turns being the co-pilot and then passengers on the flight. We also had children pretending to communicate with air traffic control through walkie talkies, and we had the pilots make announcements over the imaginary loudspeaker.

At the end of the quarter we invited two parents who are well versed in airplanes and flight to culminate our flying project. Both James’s mom Alice and Hugo’s dad Paul presented at story time and answered questions about the mechanics of flight: How does wind help airplanes fly? What makes them move? Can planes fly at night? If I have tiny wings, can I fly? Do rocket ships have computers? What can fly without wings? Are kites just wings? It was a rich and fulfilling experience for the children to get answers to questions they had been pondering throughout the past 10 weeks. Teachers were excited to see how focused and interactive these children were during the expert visitors’ presentations.

In the several months following our visit from the flight experts, the children’s interest in planes continued, and their memories of earlier project events remained vivid—results we would expect from this type of intrinsically motivated learning. If we encourage children to engage with their own questions, their own theories about how things work and their own processes for making things happen, then we can bring about true motivation.
Most parents whose child has brought a book to be read at bedtime have had similar experiences: The same story is selected night after night for weeks. Attempts to “abridge” the text in order to expedite the ritual are soundly rejected by the just-about-to-nod-off child with “You left out a part!” And then one day, walking into the child’s room, the parent is amazed that she is reading a “memorized” version of the story to herself. Young children find these repeated interactions with favorite picture storybooks compelling. In addition to the inherent joy of exploring imaginary worlds with their parents, children are also becoming fluent with the nuances and conventions of written language.

It has long been a practice at Bing Nursery School to select books for our end-of-the-day, whole-group story times that can be read to the class for a week or more. Jane Farish, a former head teacher at Bing, was inspired by a trip to her native England in 1993, when she visited some nursery schools and observed teachers selecting books for group story times in this way:

It was very clear that the children enjoyed the repetition and that they relished knowing the story and being able to chime in with words and phrases. They asked a lot more questions than we are accustomed to hearing, because with the repeated readings they were thinking more about the content of the story. They also used their concepts from the familiar stories in their play and creative activities.

But what are the benefits of reading these books multiple times to a class? What do children gain from these literacy experiences? How do repeated readings of quality children’s picture books help children in their emerging understanding of written language?

The path to reading depends not only on understanding how to decode the words printed on the page, but on becoming aware that there are important differences between the way we speak to each other and the language we encounter in storybooks. Books describe events, real or imagined, that have happened at some other time and some other place, so the author must provide more contextual information to the reader. In order to do this, storybook texts are full of words and phrases that explicitly convey tone, emotion, setting, action and temporal clues not necessary during conversation. For example, it would be unusual to tell someone about a friend’s emotional outburst the way it might be described in a book: “When he arrived back home that afternoon, he opened the door to his friends and family jumping from behind furniture, crying ‘Happy Birthday!’ His eyes grew wide, he stepped back with a shudder, hands clasped over his mouth, as he emitted a stifled scream!” In face-to-face interactions, we rely on tone, volume and gestures to help relate the story. In a book, the writer must include explicit contextual markers that not only describe what is happening, but also how it is happening.

Children’s books also contain language that often features cadence, rhyme and repetition not found in conversations. Here’s an example: “I’ve run away from an old lady, I’ve run away from an old man, I’ve run away from a horse, and I can run away from you, I can! Run, run as fast as you can, you can’t catch me, I’m the Gingerbread Man!” While we might not be surprised that a suddenly animated cookie would taunt us in verse in a book, we don’t often encounter conversational partners addressing us in rhyme and repeating their actions in order to extend a versified dialogue.

The benefits of the exposure to “book language” have been documented in recent research. In a study published in Psychological Science in 2015, the complexity of language found in picture books was compared with that of typical conversations with children. It was found that these books contain a more diverse set of words and word types than in child-directed speech. The more complex sentences and rhymes found in the simplest storybooks are an important source of vocabulary for children, and are more varied and unusual than those found in conversations.

In repeated reading of storybooks, children have the opportunity to be exposed to the richness and complexity of written words, while their understanding of how
this language is employed is scaffolded by the illustrations. With exposure over time, they begin to use this language in their own emergent reading and writing. Reading is a multifaceted process that requires a fluency in the conventions of written language, not simply the ability to decode the words on the page.

When we read picture books with a group of children, we find the children seeking out the books at other times for individual exploration or to be read to them by a teacher. We also often see children reenacting story time in the role of the teacher, pretending to read these same books to others. As children hear these books over and over, they become more proficient and confident in their independent re-readings of these books.

Independent re-reading depends on the illustrations in the book to carry the meaning and text of the story, rather than the printed words. Having been read *The Three Bears* with illustrations of three bowls, three chairs and three beds, children can use these symbols to reconstruct the story when looking at the book on their own. With repetition, their “readings” get closer to the actual book language. At this stage, children are reading from the pictures, which serve as prompts for their memory of the text—the illustrations carry the meaning much in the same way the text carries the meaning for conventional readers. It is easy to think that a child has simply memorized the text of a familiar book, but the illustrations are actually guiding them.

Another recent published study, in *Pediatrics* in 2015, employed functional MRI in examining the brain activities of 3- to 5-year-olds when being read to. The researchers found differences in brain activation according to how much the children had been read to previously. Half of the participants had been read picture storybooks on a regular basis, the other half had not. They were all read a storybook new to them, and they could not see the illustrations. Among the children with prior experience being read picture storybooks, a region of the brain’s left hemisphere, the parietal-temporal-occipital association cortex, was very active; this is the area responsible for multisensory integration of sound and visual stimulation. This part of the brain supports mental imaging and narrative comprehension—in other words, “seeing the story.” Those children who did not have the benefit of these repeated experiences with picture storybooks showed much less activity in this area of the brain. This cortex is also known to be very active when older children read to themselves. This provides strong evidence that repeated exposure to picture storybooks provides practice in developing those visual images as they look at picture books and listen to the words of the story. These experiences are strengthening brain connections that allow children to visualize the meaning of the text, to imagine and comprehend the meaning of the words on the page.

But what do we see in the classroom when children engage with favorite picture books at story times and beyond? With each subsequent retelling, children become more active participants; their curiosity, questions and ideas emerge. Children dig deeper and begin to notice and ask about novel vocabulary that they might not have noticed in initial readings. They gain knowledge of the social and physical world that they might not be exposed to in their daily lives. They also relate the experiences of the characters in the book to their own. As they notice more details in both the story and the illustrations, they begin to generate more questions and ideas. They wonder about character intentions, generate alternate plot lines and pose solutions to unanswered or unresolved parts of the story.

And finally, children who share the same literature build a community around shared ideas, themes, plots and language. The language of these books becomes intertwined in the culture of the classroom. When a child drops a marker cap and retrieves it from the floor, placing it on his head with, “Caps! Caps for sale! Fifty cents a cap!” the children at the table all chuckle appreciatively. When a child excitedly runs to inform a teacher that he needs to look in his mailbox, and the teacher responds with, “No one has ever sent me a letter before, and no one will send me a letter today,” the child recognizes the reference immediately and responds with, “Toad! Go check your mail!”

Repeated reading of picture storybooks is not only a Bing tradition, but a practice that exposes children to the richness and complexity of written language as a meaningful, enjoyable and collaborative endeavor.
Mix It Well: Cooking as a Means for Integrated Development in the West PM Classroom

By Todd Erickson, Head Teacher

“Mix it, mix it, make it, make it, bake it—yum! Mix it, mix it, make it, make it, bake it—yum!”

The irresistible refrain bounced off the walls of West Room. Borrowed from the classic children’s song *Three Little Fishies*, the melody served as an anchor for the eight children who gathered around the table to measure, pour and stir that day’s cooking project.

Cooking has long been a tradition in the Bing Nursery School classrooms, and understandably so. Like so many Bing activities, cooking with children touches development along an array of domains: social-emotional, cognitive, physical and language. Just as important, however, is the developmentally appropriate, process-focused, hands-on nature of cooking. Adding those vital ingredients to the recipe moves cooking’s appeal from the teacher-inspired pedagogical to the child-centered practical.

During the autumn quarter, cooking became a passion in West PM. The teachers noticed that children were using basic, open-ended materials like sand and water to cook in the outdoor environment. Here was a late September recipe, as crafted by Benjamin, Natalie and Corinne:

**Soup Recipe**
- Dead grass
- 1 rock
- Big leaves
- Wood chips (a lot)
- No pine needles
- Water

West PM’s outdoor playhouses were becoming restaurants, bakeries, creameries and chocolate factories. It made sense to bring that interest inside, to the art table, with a cooking experience. The children are often our best teachers and are always our most reliable curriculum guides. They regularly lead us to new, expanded and often integrated learning!

The children began in mid-October by making pumpkin bread. Over the course of the quarter, the young cooks also made pretzels, ginger bread, challah, crackers, pineapple bread and banana bread. As we moved into the winter quarter, cooking remained a favorite activity. Pizza-making in mid-March was greeted by a full table and enthusiastic participation.

There were endless developmental benefits available for children when they sat down at the cooking table. Many of the benefits described below were also expertly captured by West PM teachers Jenna Rist and Liz Prives when they teamed last fall with Center PM teacher Sheilan Kazzaz for a Bing coffee talk for parents titled “Cooking with Young Children.”

Children are interested in social connection, and the cooking table provided an intensely social and emotional experience. In addition to the obvious communal efforts and common goals, children readily bonded with each other through conversation, laughter and singing during the cooking process. As children waited for their turns and followed directions, they were honing the self-regulation and turn-taking skills needed for life in West PM and beyond. Cooking also helped the children view parent volunteers as competent and compassionate allies and also provided parents a unique lens into the daily life of the classroom. As children enjoyed the immensely satisfying experience of seeing their collective efforts produce tangible and edible results, their feelings of efficacy and competence rose right along with their baked goods.

In addition to social-emotional growth, cooking also offered developmentally appropriate cognitive challenges. As the children kept track of the amounts and numbers of scoops, employed measuring cups and even weighed ingredients, they were enjoying hands-on experiences with number sense, measurement and fractions. Creating, discussing and following specific cooking steps challenged the children’s executive function (mental organization and production) and also supported their burgeoning logical thinking. As children compared and contrasted various ingredients and cooking stages, they strengthened their ability...
Observing, Supporting and Celebrating Rough-and-Tumble Play in the Classroom

By Colin Johnson, Head Teacher

No matter how you define play, it is a dominant activity of children’s daily life in all cultures.

On the slide in East Room, children crowd in groups large and small, pulling each other up, nudging each other down, and piling together in soft sand at the bottom. A din of gleeful laughter and effortful groans combines with playful calls for help from children climbing up and answers of support from those already at the top. The apparent chaos soon resolves into a pattern, as children climb up one side of the slide and slip down another. They watch for openings above and below them, they reach their hands up and down to grasp each other and to achieve, again and again, the impossible goal of going up a thing that is designed to make you go down.

We all have fond memories of our own play in childhood—for many of us they will be creating artwork, digging in the sand or splashing in puddles after rainfall. But research suggests that every one of us, in one way or another, enjoyed learning through just a little bit of risk. According to Ellen Sandseter, professor of psychology at Queen Maud University in Norway, we enjoyed six types of risky play: climbing to great heights, travelling at rapid speeds, using real tools, exploring natural elements, hiding from...
others (real or imagined) and tumbling, wrestling and chasing in rough-and-tumble play with friends. This article explores the last type—rough-and-tumble play—through its manifestations, its challenges, and, in the end, its profound value in young children’s development.

Rough-and-tumble play is a ubiquitous childhood experience and, perhaps, the oldest form of play. It is a common theme in all human cultures, writes Sandseter in a 2011 article for Evolutionary Psychology, and the most frequent play observed in non-human mammals. In a 2011 article for the journal Young Children, Frances Carlson, author of the book Big Body Play: Why Boisterous, Vigorous, and Very Physical Play Is Essential to Children’s Development and Learning, posits a set of predictable physical interactions that derive from early play in toddlerhood: “running, chasing, fleeing, wrestling, open-palm tagging, swinging around, and falling to the ground—often on top of each other.” In fact, rough-and-tumble play shares all of the characteristics of play in general, as defined by Catherine Garvey, author of the seminal book Play: It is enjoyable, void of extrinsic goals or rewards, it is spontaneous and voluntary, and it involves active engagement by all players. Yet there seems to be a logical paradox in all of this play, according to Anthony Pellegrini, professor emeritus at the University of Minnesota, and Peter Smith, professor emeritus at Goldsmiths, University of London. In their landmark 1998 article for the journal Child Development, the authors assert that in order for a behavior to exist as universally as play does, it must have both immediate and long-term benefits for those who do it; but, if play is defined by its lack of purpose, then what are its benefits? Why do all children, everywhere, do it?

In East PM, teachers observed evolving rough-and-tumble play over the course of the year, ever incorporating new themes, new children and new patterns. In the first days of the autumn quarter, while much of the class selected activities like building block structures, molding clay, or “cooking” with sand and water, small groups of children chose to run over the grassy hills, in and out of corners and covered areas, approaching each other with feigned claws and toothy-grinned snarls. At first glance, this type of interaction may seem to present challenges, but closer inspection revealed clear benefits for our newly forming classroom community. Shortly after the onset of the play, two boys, after exchanging roars, began to sprint together in a new direction. Spontaneously, one stopped and turned to the other: “You’re my friend!” “Yeah. You’re my friend!” Their faces switched from intense focus to joyful agreement, if only for a moment, as they celebrated their new and powerful connection.

As children revisited this rough-and-tumble play, they underwent the refinement that lies at the base of development. The initial immediate pleasure of a “roar and run” game developed, over time, to include narrative scripts that bolstered and sustained the collaboration, props constructed out of open-ended materials that extended the symbolic nature of the play, and negotiations that helped children define and adapt to new ideas and new players on a given day. The “rules” that they developed were not only specific to the game at hand, but also applied their understanding of themselves and others in general. Through this play, children learned about their comfort, their ability to control their own behavior and the skills needed to sustain interactions with peers.

The interactive nature of rough-and-tumble play promotes the development of reciprocal relationships and mutual understanding, both key aspects of social development. By depending on others within play—and being depended on—children develop trust in each other. In East PM, one girl, fascinated by the chase play of her peers, began to approach the fast-moving group. This proximity drew some of the players to chase her too, and her role quickly shifted from observer to participant. Day after day, she approached the group and then, when chased, ran away with an expression of joyful fear, a rider cresting the peak of a roller coaster, and asked the chasers to stop (she wasn’t quite ready for the plunge). Teachers supported this interaction, reminding her that she could stand still and tell other children that
she was not playing the game. She also began to understand the other children's perspective that, in seeing her run, it seemed that she wanted to be chased. Yet, in spite of her trepidation, she continued to approach the players. She revisited the observer role, and, at her own pace, prepared to join. She developed trust in watching how her peers listened to her desires and respected her comfort level. At the same time, the chasers refined their understanding of the game and how it could be maintained: They responded to cues that this child wanted to join based on her proximity and gaze; they included her by running with her as they did with other established players; and they exercised self-control and flexibility when they shifted their goal after hearing her say “stop.”

After weeks of this reciprocity—interest, chase, trepidation and, ultimately, empowerment—the children developed an understanding not only of their own level of comfort with the rough-and-tumble narrative, but also trust in the playfulness, control and understanding of their peers. Now, the girl observes a group of rough-and-tumble players, hurries toward them and, skirting the group, gleefully shouts “Chase ME!” She tears away with friends in hot pursuit and bolts over the hills with a gleeful smile across her face.

In a skillful dance that’s crucial to good relationships, children learn to discern the signs that indicate others’ comfort. In the “dominant” role, such as the chaser, children respond to social and emotional cues that help them refine their understanding of how to interact with others. A smile or laughter, for instance, is usually a sign that the current play is fun and can be continued. In the event that their partner becomes uncomfortable, shifting to tears, shouts or even leaving the play, children exercise the natural process of finding out why. Why did my friend do that? What was she feeling? What caused it? And what can I do next time to keep the game going for longer? This process has led Pam Jarvis of Leeds Trinity University to assert that rough-and-tumble play “creates valuable practice scenarios for complex social interactions that creatures need to undertake in order to become competent, socially mature adults”—as she wrote in Evolutionary Psychology in 2006.

Research has shown time and again that—just as we see with the children in East PM, beings of all species often choose the seemingly subordinate role: being chased, tagged or pulled. But why? The proverbial “line” between delight and discomfort must be discovered somehow, and no individual—adult or child—can define that line for another. What is “just right” for one is “not enough” for another, and children must learn to understand this in themselves. This early experience has both immediate and long-term benefits. From a public health perspective, “If children were not provided with sufficient risky play opportunities, they will not experience their ability to cope with fear-inducing situations. Furthermore, they will maintain their fear, which may translate into anxiety,” say Mariana Brussoni and co-authors in a 2012 article in International Journal of Environmental Research and Public Health. Sandseter notes, from a developmental perspective, that the positive emotions and deep learning born of the social, physical and cognitive demands of successful rough-and-tumble play far outweigh the potential fear within it.

Of course, supporting rough-and-tumble play goes far beyond merely letting it happen. Adults must also be realistic and aware of children’s developing competencies—the burgeoning perspective-taking that is just now making them aware of others’ feelings, or the self-control that seems to grow exponentially with each passing year. In order for the play to be safe, teachers maintain a safe environment; and in order for the interaction to reach its full learning potential, teachers observe carefully and respond appropriately to the rapidly changing contexts of rough-and-tumble play.

Frequently, children encounter each other in the classroom, embrace, laugh and playfully tumble to the ground. Though the social connection is clearly joyful, the physical and emotional safety is paramount, and a teacher quickly gets to the children’s level. “I see you smiling,” they say to the child on the bottom of the scrum. “I wonder if you like that?” In another scenario the teacher may note important social cues: “I see your face, and you look upset,” “You’re trying to get up; let’s give you space,” or “She’s trying to catch you; do you like this game?” In these and other situations, adults use their observation skills (learned through years of their own play and interactions) to note implicit rules and subtle changes in the play.

An adult’s central role, then, during rough-and-tumble play is to help bring these physical, social and emotional currents to the surface—to make the invisible visible for the young children engaged. Indeed, supporting rough-and-tumble play leads to some of the most active teaching in the classroom. Teachers remain close by, watch for facial expressions, listen for tones of voice and speak with the authority of a caring and understanding guide.

In pursuit of the pleasure that comes from this interactive play, children undergo social, physical, emotional and cognitive growth that is both a means and an end. Their development builds on itself to improve the play over time, making it even more enjoyable. At the same time, it supports a set of skills that prepares children to observe, act and collaborate confidently in a variety of future contexts that we cannot predict. Yet, in both schools and neighborhood parks, this play seems to be dwindling. In creating her vision of Bing Nursery School over 50 years ago, founding director Dr. Edith Dowley committed to “giving back to children some of the things that modern life has tended to take away from them.” Her words related to all aspects of a child’s world. As such, children’s rough-and-tumble play—as rich, natural and ubiquitous as it is—begs the same support, care and preservation as the rest of the early childhood experience.
We mix our age groups: We have children from 2½ until they’re 5 in the same group, so that children always have a chance to be the youngest and the oldest and the in-betweens. Little children have peer models that are much easier to imitate and learn from than adults are, and the older children look back and pace their growth and see how they learned. And they say things like ‘I couldn’t do that last year either, but now I can,’ or ‘I’ll help you,’ or ‘If you had a box that you stood on, you could reach it,’ and this kind of thing, so that awareness of growing and sympathy with growing is a part of it.... — EDITH DOWLEY, 1971

This year, Bing Nursery School celebrates its 50th anniversary. This tremendous milestone offers us a wonderful opportunity to reflect on our school, its underlying principles, current practices and future direction. Our founding director, Dr. Edith Dowley, envisioned a space where children were valued and respected and where they could freely explore in a play-based environment. Her commitment to creating a school where children’s needs are honored first and foremost is evident in all components of Bing, and her original tenets are still evident today. One significant component of her philosophy was that children should be in mixed-age groupings because they most closely duplicate what children might experience in their home environment. Alberta Siegel, the late Stanford professor of psychiatry and former chair of Bing’s director’s advisory committee, reminisced about Dowley’s impact on Bing and on the field of early childhood to the Bing staff in 1997. She noted Dowley’s conviction that the nursery school should be an extension of the family outward rather than of the elementary school downward. Dowley was certain, and research confirmed, that when children were segregated by age they missed out on the opportunities to learn from the experiences, knowledge and abilities of older peers. Her decision to create a mixed-age program, which was rooted in the research of 50 years ago, continues to be supported by research today and is alive and well in West AM.

Consider the following example: Mila, age 4, is making a rocket ship using flat magnetic plastic shapes. She connects a triangle piece to one of the square pieces and begins her countdown, “Five, four, three, two, one, blastoff!” As she says “blastoff,” the triangle piece separates from the square piece, heading off on its own trajectory away from the square. She holds firmly to both pieces as the triangle momentarily “flies,” then returns and reconnects to the square. Anson, age 3, is watching as he builds a “dog,” using the same materials. He laughs to himself as he uses multiple pieces to create a very long structure. He glances at Mila, who is building again, then adds a triangle to one end of his long creation. Moments later the triangle separates from the other pieces, mimicking the movement made by Mila’s rocket ship. Anson explains, “The dog takes his head off (chuckles to himself) and pushes the button (another magnet lying on the table). The head blasts off and it knocks stuff over.” He proceeds to use the triangle piece to take apart the other pieces of the dog.

In her research, Lilian Katz, professor emerita of early childhood education at the University of Illinois at Urbana-Champaign, found that younger children in mixed-age groupings demonstrated a capacity to participate in and extend more complex activities when initiated by an older peer than they could do if they were by themselves. Perhaps Anson’s decision to expand his description of what dogs can do was impacted by the model that Mila offered. As teachers, one such observation does not allow us to make that conclusion. However, after the first experience, Anson continued to build and to watch Mila as she worked. Much of his work that day reflected what he witnessed in her play.

Another day, Phoebe, age 3, and Lea, age 4½, are working together at the design table, where open-ended, recycled materials and tools are available. Phoebe notices Lea cutting out a heart shape using the technique of folding her paper in half, then cutting a slanted half-circle. “I can’t do that,” Phoebe announces, as she carefully watches Lea’s process. “It’s easy. Let me show you how. This is how you draw a real heart,” is Lea’s response. She gets a piece of paper, folds it in half and draws half of a heart outline. “I want you to follow the lines I drew and just cut there and you’ll get the shape you want,” she says as she hands it back to Phoebe. Phoebe takes the paper and tries to cut the heart, but the paper unfolds as she works and the end product looks...
more like an oval. Lea inspects it and points out to Phoebe, “You have to keep it folded and cut both pieces. Here, try again.” She draws another outline and this time Phoebe smiles as she unfolds her paper to discover a heart shape.

So, you might ask, could a teacher just show a child how to build with magna-tiles or cut a heart and have the same results? Perhaps. But again, research provides a framework for understanding the value of this type of exchange. First, as older children model more sophisticated approaches to problem-solving for their younger peers, it increases the older children’s level of independence and competence. Second, research conducted at Bing by Stanford scholars Allison Master and Gregory Walton showed that when children perceive that they belong to a social group (e.g., when they are told that they are part of a “Blue Group”), they are more motivated to persist on challenging tasks such as puzzles (Child Development, 2013). And third, older children view younger children as needing their help, whereas younger children perceive that older children can offer instruction and leadership. When these two forces combine in mixed-age classrooms, it creates an environment of cooperation, which is beneficial to all.

Take, for example, this incident that occurred a few months ago. Mateusz, age 4, was trying to make a ticket for teacher Quan (pronounced “Waan”) so he could ride on the train Mateusz had constructed.

Mateusz: “Wuh. Wuh. What makes the sound ‘Wuh’?”
Teacher: “I think that might be a ‘W.’ I wonder who can help us figure it out?”
At that moment, Sydney, age 5, comes into the classroom to begin her day, backpack in one hand, fruit in the other.
Teacher: “Sydney, can you help Mateusz?”
Mateusz: “I need to make a ticket for Quan to ride on the train.”
Sydney (smiling at Mateusz as she sets down her backpack and places her fruit in the basket): “Sure!”
Her demeanor reflects a sense of competence and a desire to help. Mateusz explains: “Can you write ‘Quan’? Wuh. Wuh. Wuh.”
Sydney: “I think so. Can you tell me what it starts with?”
Mateusz: “Wuh. Wuh. What makes the sound ‘Wuh’?”
Sydney: “I think that might be a ‘W.’ I can make a ‘W.’”
She proceeds to write one on his paper.

Sydney saw an opportunity to help Mateusz and, in the process, solidified her letter-writing skills while also emulating for Mateusz that it feels nice when an older child offers support and nurturing. Though Quan’s name is actually spelled with a “Q,” he judged that this was not a good time to help both children learn this information, so he didn’t correct them. Prosocial behaviors like giving help or sharing are more frequent in mixed-age groups, as Penelle Chase and Jane Doan state in Full Circle: A New Look at Multiage Education (1994). Children need “opportunities to gain insight into the feelings of empathy and sympathy, altruism and compassion, generosity and kindness.” stated former head teacher Beverley Hartman in the 2004 Bing Times. The added benefit of these experiences is that as younger children become the older children in the group, they also emulate these behaviors, and the culture of the classroom continues to reflect this compassion. In fact, research confirms that mixed-age groupings enable children to appreciate how their own skills (such as writing or climbing or cutting) have developed, and also to acknowledge their own progress and to realize that others are developing as well.

The following example seems to indicate that Ella has an awareness and appreciation for the fact that Ava is learning how to swing. Ava, who’s 3, is sharing her thinking as she holds tightly to the chains of the belt swing, extending her toes as she goes up in the air, and grinning on the way down. “When I was 2, I had a ‘pasi’ (pacifier). Then I was 3, then I’ll be 4, then 5, and then, I’ll touch the sky!” The teacher giving occasional pushes smiles and says, “You are noticing that you keep getting big-
“Ava nods and says “Yes, but I’m still a little girl now.” On the swing next to her, Ella, who’s 4 ¾, pumps her legs back and forth. “I don’t need pushes anymore,” she announces. “Look, Ava! I’m as high as you!” The two girls smile at each other and continue to swing.

Another day children enjoy the process of reflecting on their own growth, as they engage in an art project together. Kaelum, age 4, Lea, age 4 ½, and Maia, age 4½, decorate paper butterfly wings on the stage in the yard. Lea is using multiple decorations and needs lots of masking tape, so a teacher helps her by placing pieces on the edge of the table. Kaelum watches and says, “I get my own tape now” and tears off a piece. The other two look up and nod as if in acknowledgement to his pronouncement, then return to their work. Maia is drawing many hearts on her wings. “I practiced them [hearts] so now I can do them,” she announces, to which Lea responds, “They’re easy for me. I practiced since I was 3.” None of the three stopped their work or challenged the others’ reflections. Instead, they seemed to just share a mutual moment of acknowledging their growth.

Sometimes, younger children even reflect on the skills demonstrated by older peers as in this scenario with Julian and Keira. Julian, age 3, uses a front-end loader to make a road in the sand area close to the monkey bars. Keira runs through the sand area, climbs the ladder up to the monkey bars and reaches for the second bar, bypassing the first one. She crosses the monkey bars swiftly, her movements seeming almost effortless, particularly when she jumps down quickly on the other side. Julian pauses to watch her. “Keira, how old are you?” Julian asks. “I’m 5” is her reply. “And is Marie 5, too? Can she also do the monkey bars like you?” Julian knows that Keira and Marie are very good friends and they spend most of their time at school together. “She’s 5, too, but I’m a little older. We both do monkey bars. I’ve been doing them since I was 3, no, maybe even 2” is Keira’s response. “That’s a lot of practice,” comments the teacher, and Julian nods and watches Keira run off to the swing. He resumes his work in the sand for several more minutes, then mounts the ladder to the monkey bars. He climbs to the top rung and jumps to the sand, smiling to himself when he lands on two feet.

Clearly, positive examples of the value of mixed-age groupings are plentiful. Jay Siegel, professor Alberta Siegel’s son and a former Bing parent, recently shared with us his daughter’s experience at Bing: “We could also definitely see the benefits of Bing’s multi-age classes. Sydney has always interacted very well with younger children. Her first grade class was a combination kindergarten/first grade. Sydney really enjoyed the younger children in the class, and the teacher remarked how well she ‘worked’ with the kindergarteners and how much they looked up to her.”

It is important to add that teachers play an important role in facilitating play, encouraging collaboration and reminding children to be mentors to others, rather than gloating over their higher-level skills when children are not yet able to do it for themselves. As identified by Dowley many years ago and reinforced by ongoing research, mixed-age groupings provide a rich and varied environment in which children can learn. Jennifer Winters, our current director, expresses it eloquently: “This plan [mixed-age grouping] is optimal for children’s social and emotional growth, as they learn to be both leaders and followers: They learn to compromise and collaborate; to plan and negotiate; to work in a group or by themselves. It is much like a family grouping in that there is a wide range of competencies” (The Bing Times 2014). To see this wonderful learning in action, come visit West AM or any of the other classrooms at Bing!
Building Tomorrow’s Creators: Lessons from Play

By Niko Varella, Teacher

Bing Nursery School teachers were among the more than 1,200 attendees of the 2015 Innovative Learning Conference, which focused on the theme “Tipping Points in Education.” The biannual conference organized by The Nueva School was held in October at Nueva’s Hillsborough campus. Attendees heard from experts and leaders in the fields of education policy, engineering, neuroscience and more on how the way people learn and teach in the coming decades will likely be defined by the choices made in education today.

Of particular interest to me were two presentations relating to fostering creativity. Schools across the United States struggle to inspire students to enjoy learning and delve into creative thinking without fear because these qualities are essential to become self-motivated, confident learners. At Bing, with our play-based curriculum, we do our best to indulge children in their creative and inventive natures, a practice that neuroscience research has shown allows children the capacity to learn and create more.

At the conference, Elizabeth Rood, vice president of education strategy of the Bay Area Discovery Museum and director of the Center for Childhood Creativity, spoke about the imperative of creativity. Schools across the United States struggle to inspire students to enjoy learning and delve into creative thinking without fear because these qualities are essential to become self-motivated, confident learners. At Bing, with our play-based curriculum, we do our best to indulge children in their creative and inventive natures, a practice that neuroscience research has shown allows children the capacity to learn and create more.

Rood noted that encouraging creativity is challenging, and teachers witness its decline as children grow older. The phenomenon known as the fourth grade slump, a marked decline in original thinking in children around age 9, has plagued educators for some time. Rood suggested that this phenomenon is a consequence of the constant state of attention that is demanded of students and the lack of time dedicated to allowing them to explore their interests or calm their minds.

Rood cited a study by Charles Limb, musician and associate professor of otolaryngology at Johns Hopkins University, who recently looked at the effect of musical improvisation on the brain. By comparing two sets of fMRI scans done to a person while they play music, Limb was able to identify the separate regions of the brain involved when the participant would play a memorized piece as opposed to improvising. During improv, the default-mode network, or as Rood prefers to call it, the daydream network, would activate. It is this region of the brain that is engaged less often than it should be in school, she said. “When we go to the [daydream] network we get told that we are off-task and acting badly,” said Rood. “What do you do then? What do you do to get kids to go to [this] network?” The fundamental answer is that children need downtime, to relax and to be in a place where they can foster a creative flow. “They need to play and they need to do unstructured activities. They need to follow their own lead.”

With encouraging learning and creativity in mind, Kyle Shaffer, head of the new KIPP Excelencia Community Prep public charter elementary school in Redwood City, presented on the idea of shaping a school around the needs of the children and students. To accomplish this, Shaffer spent more than a year designing a new school, from transitional kindergarten to eighth grade, after studying schools around the country. The KIPP charter school that he oversees was founded on fostering three perspectives: those of the family, the children and the teachers. By ensuring that all three have a say in the decisions of the school, Shaffer hopes to shape a community-endorsed climate that everyone involved is excited about.

Shaffer recounted an experience from his teaching career involving a 15-year-old boy who was unable to do double digit addition. After having been held back for two years yet continuing to struggle, Shaffer told him that all he wanted to see from him was effort. After the boy practiced and practiced, and Shaffer helped and encouraged him throughout, he was able to convey to his student that he truly cared about the effort he was putting in. “I still remember, right now, him looking up at me,” Shaffer said. “He said it with his eyes: ‘Oh my gosh, this guy means what he says. All he cares about is that you understand how to do this. He’s not going to let you down.’ And so, suddenly, it all clicked for this student.”
about is effort.” Just a handful of years later that same student graduated high school and attended college. As Shaffer puts it, it is “our responsibility as adults and a society to create a system where all kids truly have access to education.”

Here at Bing we love to see our children learn and grow. We see the value in including families and connecting with parents and caretakers. Edith Dowley, Bing’s founding director, fostered the principle that each child at our school was to be treated as an honored guest, given the gift of time and freedom of movement. Children enter a place to be welcomed and accepted, to explore their own interests and be empowered. We foster what is known as the competence model of teaching, wherein children are seen as competent and able, respected and treated as such. Bing was founded on the philosophy of giving children the time and resources to explore the world around them, where we as teachers act as guides, giving them our timely support. We believe in investing in the future through educating our children today, inspiring new innovative ways of thinking and encouraging them to develop originality and creativity. “A school is not the name on a building,” Shaffer stated from experience. “A school is the people. A school is the adults inside and what they believe about kids, and what we’re doing for kids.”

**Winter Staff Development Day: Creating Intentional and Meaningful Learning Experiences**

By Raquel Ryan, Teacher

Bing Nursery School’s 50th anniversary this year has inspired current staff to reflect deeply on what it takes to create an exceptional environment for young learners. We highlighted this theme on Feb. 8 at our quarterly staff development day, where we gathered and listened to three of our own distinguished colleagues deliver talks about three seemingly separate subjects: literature, math and music. We discovered throughout the day that, as teachers, we can employ similar strategies to support learning in each area. Repetition and active participation emerged as common threads that ran through each of the inspiring presentations.

The day started with a talk from head teacher Mark Mabry, titled “Read It Again! Repeated Read-alouds of Children’s Books Inspire Emergent Literary Experiences,” which he co-presented at the National Association for the Education of Young Children Conference in November 2015. It emphasized how repetition begets a familiarity with a story that transforms the storytelling experience from passive listening to active participation for children. This active participation then leads to the children’s meaningful learning of written and spoken language. Mabry closed with a reminder that this is the intention behind reading the same story all week at story time and keeping the book shelves in each classroom stocked with the same books for an entire quarter. (For more details about this lecture, please see page 27.)

After a brief time for questions and small-group discussions, head teacher Todd Erickson presented “Counting on Play: Creating a Preschool-Aged Mathematics Foundation in a Play-based Curriculum”—a talk he had previously given in February 2015 at the Early Childhood STEM (science, technology, engineering and math) Conference. In this lecture, Erickson emphasized that repetition and active participation lead to significant learning of basic and complex mathematical concepts. He explained several strategies teachers can use in the classroom to support mathematical learning, including using specific math language during play and creating math projects based on the children’s interests.

Children are born mathematicians; they recognize patterns and show an interest in classifying and ordering objects, Erickson said. Using basic, open-ended materials such as unit blocks, children build their mathematical reasoning skills by solving problems during their play. Given uninterrupted play time, children can develop multiple strategies for dealing with a single problem. They also have the opportunity to return to an unsolved problem time and again. Repeated experiences help children to gain knowledge through successes and, perhaps more importantly, through failures. When children are working with unit blocks, adults can support their mathematical reasoning using math language. This can be anything from “I wonder how many pieces you have here” or “I wonder which building has more pieces” to “Let’s count the number of small blocks it takes to equal the length of a large block.” Intentionally using repeated math phrases during block-building helps children to develop a deeper understanding of math.

Erickson also discussed how teachers can encourage learning of mathematical concepts through the project-based “emergent curriculum” approach used by many Bing teachers. Emergent curriculum is a teaching philosophy that aims to create an enriching, open-ended environment by responding to the individual interests of the children. Projects offer the opportunity to explore math concepts in a contextually relevant way and also have the capacity to grow to suit the children’s
changing interests. A teacher holds many responsibilities when facilitating these projects, such as supporting foundational learning, experimenting with different learning modalities and revising as needed. For example, if the children are showing an interest in colors, a project to determine how many children like each color could be implemented using charts and graphs. This kind of project can be extended across weeks and helps children to understand basic math concepts such as number use and recognition, one-to-one correspondence, and comparing object groups. Erickson reminded us that it is important for teachers to continually follow the interests of the children with the intentions of the curriculum in mind. Focusing on these goals encourages teachers to fight the “either/or” mentality of directed-teaching versus play-based learning, and instead incorporate both where appropriate.

After a time of small-group discussions, we listened to a lecture from head teacher Kitti Pecka, called “Keeping the Beat! Music, Math and Poetry.” Similar to the two talks before her, she emphasized repetition and active participation as crucial parts of music learning, and touched briefly on how music leads to the formation of important connections in the brain. Pecka also explained how music can be a powerful tool for children to make connections across disciplines, with others, and within themselves.

Music connects to language and math in several ways, said Pecka. Much like repeated read-alouds, singing the same songs over and over again allows children to gain a better understanding of rhythm and lyrics. The cadence of the song can assist children’s understanding of the natural cadence of spoken language, and the lyrics can support their understanding of the meaning of words. Additionally, musical lyrics are a simple way to expose children to beautiful poetry. Music is also inherently connected to mathematics because of the way beats and rhythms are divided. By simply participating in music, children are starting to understand basic math concepts. In a more straightforward example, singing songs about math can teach children specific concepts. An example of this is the song Five Green and Speckled Frogs, where one frog jumps off the log in each verse. The repetition of the chorus with one less frog each time allows children to grasp the concept of subtraction.

Music time also serves as a venue where children can express their own personalities and still feel a part of a larger community. Creative self-expression through singing and dancing can contribute to a child’s self-esteem and sense of individuality. The magic of music comes when all the individuals actively participate together. As Pecka reminded us, “We can all come together and sing at the same time—we cannot do the same when we are talking.”

Over the course of the day, it became clear that repetition and active participation are two of the most important parts of significant and meaningful learning for children, regardless of discipline. The day was filled with information describing the intentions behind many of the current practices at Bing, and we left feeling inspired to carry out that intentionality in our day-to-day lives, always being mindful that we are working to create an optimal environment for young learners.

Spring Staff Development Day: Building Resiliency to Improve Adult-Child Relationships

By Jeanne Zuech, Head Teacher

Compelling research suggests that toxic stress can affect children’s development, and caregivers’ own experiences of stress can affect the quality of adult-child relationships. A workshop at the Bing Nursery School spring professional development day, held April 25 in the Tower House, deepened the staff’s understanding of toxic stress and how we can lessen its effects through sensitive, responsive caregiving relationships. The morning workshop, led by husband-and-wife team Kelly and Darryl Etter, offered practical strategies to improve our own emotional well-being in order to build supportive relationships in our caregiving communities.

The workshop began with Kelly Etter helping us understand stress and how our bodies respond to it. Etter, an expert on early childhood development and early care and education policy, clarified the definition of stress: It is when we feel that the demands placed on us outweigh our resources. Our brains and bodies respond to stress by releasing stress hormones, which results in temporary physiological changes such as increased heart rate, heightened alertness, and increased energy and muscle strength. Our bodies cannot differentiate among types of stressors (such as the first day of school jitters or seeing a bear in the woods). Our response to stress is meant to increase our capacity to manage threats and challenges, yet the body is basically entering survival mode. Metabolically, this process is costly to activate and should only be used in emergencies. Etter
compared the toxic stress response to fire fighters continuously patrolling neighborhoods, never returning to the fire station to relax or recover. In this constant high-alert state, fire fighters would likely start reacting to false alarms. Similarly, if a child lives in a state of tension due to chronic stress such as neglect or abuse or unreliable caregiving, the child’s body would take tremendous wear and tear, leading to significant long-term health problems. Similar to the fire fighters, children would likely exhibit strong reactions to what would normally be minor actions, such as another child bumping into them or someone slipping in front of them in line to wash hands at the sink.

Significantly, the effects of toxic stress on children have been shown to impair the growth and activity of the brain and adversely affect areas of the brain responsible for such skills as self-regulation, decision-making and memory. Toxic stress also has implications for learning. A child experiencing toxic stress can be hypersensitive to the environment, quick to respond to perceived threats or have a strong focus on the present moment. At school, such a child might be viewed as being inattentive, having memory or planning difficulties, or being impulsive and aggressive. A diagnosis of ADHD might veil significant early trauma, Etter said.

“The good news,” stated Etter, “is that we know what works to buffer the stress for children: relationships with caregivers. Relationships can physically alter children’s brain development.” Etter explained that caregiver sensitivity and responsiveness predicts children’s stress hormone levels and stress response patterns. Children who are securely attached to caregivers are more likely to have more normative patterns of stress response rather than the “continual fire truck patrol” state. Encouragingly, supporting positive caregiving relationships can reverse some of the physiological effects of chronic stress. The single most common factor among children who do well despite early adversity is the presence of at least one supportive, responsive adult in their life. The self-care of the adult is then of vital importance.

During the second half of the workshop, clinical psychologist Darryl Etter addressed adult emotional well-being and how to integrate strategies daily for self-care. Caregiver well-being is especially important, he said, because of its impact on establishing a positive, secure relationship with the child. He explained how coping skills drawn from cognitive-behavioral therapy—where changes to one’s physical status, behavior and thoughts interact to affect each of those domains and one’s mood—can help caregivers manage their own stress and mood. Physical strategies to promote well-being include diaphragmatic breathing and progressive muscle relaxation. The deep breathing counteracts stress by influencing heart rate, blood pressure, breathing rate, muscle tension and increasing oxygen to the brain and body. Practicing diaphragmatic breathing two to five minutes each day can condition one’s brain to get to a relaxed state more quickly. Progressive muscle relaxation—tensing and then totally relaxing individual muscles—can counteract stress by reducing muscle tension and by increasing awareness of one’s physical state and overall mindfulness. Behavioral strategies for self-care included doing three things each day that one enjoys. Referencing the research of Stanford professor of psychiatry Dolores Gallagher-Thompson on the importance of deliberate acts of self-care, Etter emphasized that we must purposely do things that make us feel good so that we can be emotionally satisfied. People most commonly cite lack of sufficient time and energy as the biggest challenges to engaging in pleasant activities, said Etter, but in reality, the biggest challenges are expectations and habit. Perhaps self-care is not yet consistently part of the adult’s routine, and prioritizing it even in a small way requires creative thinking, he suggested. Cognitive strategies emphasize changing our thinking about a situation to something more balanced and helpful, rather than more extreme thoughts that contribute to more unpleasant emotions. To facilitate this kind of reframing, Etter suggested using structured practice of identifying helpful, motivating thoughts to keep a flexible mindset—for example, every night, write down three things that went well and why they went well. Etter noted that people who did this for as little as one week saw better mood months later compared with individuals who had not done the exercise, likely because those who carried out the nightly practice were specifically looking for positive events and felt a greater sense of agency over their lives. A positive attitude and routine self-care are imperative for establishing and maintaining healthy, responsive relationships with children in our care.

After lunch, the staff had an afternoon of small-group discussions. Staff had the choice of working on documentation and anecdote writing, led by head teacher Adrienne Lomangino and director Jennifer Winters; exploring strategies to integrate music with storytelling, with music specialist Kitti Pecka and associate director Beth Wise; and having hands-on experiences with basic materials, with head teacher Colin Johnson. We concluded the day by meeting in our teaching teams to discuss curriculum, documentation and spring conferences.
Bing Nursery School administrators and teachers were among the presenters at the 2015 National Association for the Education of Young Children’s annual conference. The gathering provides educators, researchers and administrators from across the country the opportunity to learn from one another about current studies, strategies and successes in the world of early learning and development of young children. This past November’s gathering, in Orlando, Florida, offered hundreds of presentations, exhibits and discussions highlighting topics such as understanding exclusionary play, fostering resilience in young children and supporting dual-language learners in the classroom. As a first-time attendee, I appreciated the opportunity to explore topics presented by a myriad of early childhood professionals, as well as attend presentations given by our own Bing experts.

Head teachers Nandini Bhattacharjya and Parul Chandra participated in a poster session at the conference. Titled “Potential of the Learning Environment: Enhancing and Integrating Creative Thinking in Young Children,” their poster highlighted Bing’s dynamic indoor and outdoor classroom, emphasizing the importance of intentionally designing a space that fosters curiosity and creativity. Through photos, Bhattacharjya and Chandra shared children’s work with the basic and open-ended materials: blocks, clay, paint, sand and water. Additionally, the poster provided images of woodworking and ideas for recycled or “found” items to offer children as design materials for their creative expression.

Mark Mabry, a head teacher at Bing, and Isabel Baker, owner of the online children’s bookstore The Book Vine for Children, presented on the benefits of re-reading stories aloud to young children, as well as the key characteristics to look for when choosing a children’s story book. In their presentation, “Read It Again! Repeated Read-alouds of Children’s Books Inspire Emergent Literacy Experiences,” Mabry and Baker noted the positive impact of revisiting storybooks with children in order to enhance their interest in and capacity for reading and writing. With repeated exposure, children not only begin to identify distinctions between the images and the text, but they also increase their visual awareness, cognitive connections, critical thinking and problem-solving skills. Mabry spoke about the richness, complexity and conventions of the written language as distinct from what we hear in conversation, such that “book language is not constrained by the here and now.” Mabry and Baker emphasized that rhyme, rhythm and repetition in children’s books entice and engage early readers. Captivating illustrations, along with a thoughtful narrative, draw children into the world of literature and spark a growing curiosity for the written word.

Bing’s director, Jennifer Winters, and associate director, Beth Wise, gave an inspiring presentation to more than 200 people on how to best support a staff of educators. In their talk, “How to Develop Highly Creative Teams: What Administrators Need to Know to Ignite Passion, Purpose and Commitment in Your Organization,” Bing’s director and associate director shared their own trajectories as leaders and offered numerous skills and insights they have gained along the way. Winters and Wise discussed essential facets of effective leadership, including teamwork, authenticity, adaptability, communication and appreciation. They outlined each of their 11 tenets on leadership with specific examples, practical advice and a sprinkling of personal reflection. The underlying thread binding each tenet: Be present. Be open. Be reflective. Winters and Wise encouraged attendees to ask themselves frequently and honestly: How do I contribute to this? What is my role? Even as directors and leaders, Winters and Wise invited colleagues not only to teach, but also to practice identifying and owning one’s role as a team member in order to build a strong, cohesive unit. As a member of the teaching staff at Bing, I felt a great sense of pride and gratitude for the commitment, intentionality and investment of our administrators.

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SELF PORTRAITS

By Grace B., 4 years 11 months
By Corinne H., 5 years
By Oliver R., 5 years 1 month
By Ella M.-K., 5 years 6 months
2016 CAEYC Annual Conference and Expo

By Bryn Kressin and Anna Patterson, Teachers

Tips on enriching children’s play and choosing books they will love were two of the highlights of this year’s conference of the California Association for the Education of Young Children, held in April. Approximately 2,400 early childhood professionals and administrators filled workshops and the exposition hall for the three-day event in Pasadena, California, which focused on the theme, “Early Education: A Pathway to Lifelong Learning.”

Keynote speaker Diane Levin grabbed our attention with her presentation, “Remote-Controlled Teaching, Remote-Controlled Play: What’s going on? What can we do about it?” Levin, a professor of education at Wheelock College and author of Beyond Remote-Controlled Childhood, raised concerns about the amount of screen time in young children’s lives and the lack of hands-on experiences. Both of these trends are likely to have a negative impact on the development of children’s social intelligence, creativity and critical thinking. To remedy this growing epidemic, Levin outlined strategies parents and educators can use to enrich children’s play. Among them: making meaningful connections between children’s interests and their developmental needs, providing toys that allow open-ended uses, asking open-ended questions, modeling problem-solving strategies, talking about play and helping children develop play interests over time. At Bing, the five basic, open-ended materials—blocks, clay, paint, sand and water—along with the child-centered, play-based curriculum strongly support these strategies. For those interested in exploring the topic further, Levin referenced available resources on her website: www.truceteachers.org.

Another noteworthy presentation at this year’s conference asked the question, “What constitutes a good book?” Isabel Baker, owner of The Book Vine bookstore, answered this question in her talk, “Read Aloud Wow! The Best New Books for Preschool Children.” According to Baker, a good book is “a work of art through the combination of illustration and words” and, most importantly, brings joy to the community. Also, it is often tied to multiple curriculum topics and has rich language that will build a child’s vocabulary.

Baker’s enthusiasm and passion for books was infectious as she read and discussed some of her favorites coming out this year, which incorporate community, multiculturalism, science, math, social and emotional themes. When choosing a book for a read-aloud, Baker says: “It should be a book that you love,” because when a reader’s passion for the book is apparent, children have a more enjoyable reading experience.

We came back eager to share these new books with our classrooms at story time and with the entire Bing community. This year’s CAEYC conference embodied the passion not only to teach, but also to learn in the complex, innovative and ever-evolving field of early childhood education. We attended presentations pertaining to social and emotional intelligence, improving communication between school and home, supporting children and families with special needs, infusing mathematics with play and choosing quality children’s literature. We returned from the conference feeling that, like the children we work with, we too are on a journey of life-long learning.

VISITORS FROM ABROAD

Four groups of educators from China and Japan visited Bing Nursery School in the 2015–2016 school year to learn about the school philosophy and discuss educational practices. Photographed above are a delegation from China, at left, and visitors from Japan.
Early Learning Water Cooler Network Conference: The Case for Universal Early Childhood Education

By Katy Jordan, Enrollment Administrator

I attended the 8th annual Early Learning Water Cooler Network Conference in Sacramento, Feb. 22–23, 2016. The theme this year was “Stronger Together: Transforming Opportunity for Every Child.” It is co-sponsored by the Advancement Project, a nonprofit organization focusing on civil rights and equity in education, and the California Department of Education. I was struck by the commitment of all attendees to the focus of the event: the importance of early childhood education for language development, for brighter futures for children, for the curative possibilities it affords to children who have experienced stress and early trauma.

More than 300 individuals attended this conference, with a wide range of careers, organizations and experience in education present. They came from private and public sectors, and all were stakeholders in the field of early childhood education. Individual speakers and panel participants were a range of elected California legislators, educators and leaders in many organizations championing the needs of young children in California and the nation.

The first keynote speaker was Patricia Kuhl, a professor at the University of Washington in Seattle. Her group, the LIFE (Learning in Informal and Formal Environments) Center, uses modern technology to examine principles of human learning in different environments. Kuhl’s research shows the critical period for learning language is before age 7, and that babies try to master which sounds are used in their native language in the first 8 months of life. She told the group it is the “social brain” that is required for language development. “The brains of young children need the parental social input.” More of her work can be seen at http://life-slc.org.

The next keynote was from David Grusky, professor and executive director of Stanford’s Center on Poverty & Inequality. Grusky stated that California has a higher rising poverty rate than any other state, and that unequal opportunities are the source of poverty. Grusky’s message was that all children need access to good early learning, and it is our responsibility to try to help all communities achieve this. He said this is for the public good, as there has been a 50 percent decline in mothers at home since 1970. These children need good quality childcare and good early education. He hoped that eventually early childhood education would be public in California. This group’s methodology, reports and briefs are available at: http://web.stanford.edu/group/scspi/center_about_home.html.

The last keynote was by Paul Tough, New York Times Magazine writer and author of the 2012 book How Children Succeed. He has covered everything from a study at McGill University about how grooming behavior in mother lab rats can lead to young rats that are braver, more curious and live longer, to The Adverse Childhood Experience Study, sponsored by the Centers for Disease Control and Kaiser Permanente, which looks at linking childhood trauma to long-term health and social consequences. (See www.acestudy.org for more information.) Tough discussed stress and learning in young children, with brain science studies to back up his comments. He recounted studies from Russian orphanages where the children were not thriving, suffering from “chronic under-stimulation.” With simple retraining of the nursing staff, to hold and talk to and sing to the children, they made substantial gains in overall health and vitality. He reminded us all that “relationships are the most important part of any child’s environment!” Tough said that children from ages 0 to 3 need a secure attachment, with a “close attuned relationship with a parent” or caregiver. If they are not given this opportunity, they may face peril. There is a negative cycle of stress, leading to behavior problems, leading to punishment, leading to bad feelings, leading back to stress. Since his first book, How Children Succeed, he has learned so much about the mechanisms of learning and child development that his new book is titled Helping Children Succeed: What Works and Why.

Beyond the keynote speakers, three different panels on day two discussed a range of topics relating to issues of early childhood. Members of the panels were elected state officials, the head of the California teachers union, the governor’s budget office officials, university educators and leaders in the nonprofit world. The panels continued the conversation of bettering the lives of children through early childhood intervention. My overall impression was that all present would like to see universal preschool become a reality in California, not just for those who can afford to choose, and both the public and private sector are working to make it happen. Recordings of the keynote speakers and the panels can be found on YouTube by searching the phrase “ECE Water Cooler Conference 2016.”

A large ocean but there are no animals. By Leo L.-S., 4 years 5 months
Every year, Bing Nursery School hosts a kindergarten information night to help parents prepare their children for a smooth kindergarten transition. This year’s event, held Jan. 13, had a panel of experts including Menlo Park pediatrician Sarah Cueva; Herbert Hoover Elementary principal Katy Bimpson; Nixon Elementary School kindergarten teachers Jodie Harrier and Stephanie Han, as well as reading specialist Susan Chakos, a former Bing parent; and Bing head teachers Nandini Bhattacharjya, Adrienne Lomangino and Peckie Peters. The panel offered parents advice, answered questions and assured parents that their children are truly ready for the journey to kindergarten.

Sarah Cueva, a physician at Burgess Pediatrics, began by passing along a valuable message: “Your nursery school teachers are a gold mine of information.” Cueva continued by assuring parents that children’s transition from nursery school to kindergarten is the most successful when parents and nursery school teachers collaborate in the process.

Cueva followed by providing parents pointers to set up their children for success. One tip was to schedule their child’s 5-year check-up at the pediatrician, paying close attention to the tests of their vision and hearing. She also stressed the influence of both nutrition and sleep on a child’s day: Eating a well-balanced breakfast and a healthy lunch and getting a good night’s sleep of 10 to 12 hours can help with the transition from a half-day to full-day program. Cueva also advised parents to provide children with activities that will help them gain confidence and independence, and since it is important for children to feel comfortable in their new school setting, being able to take care of their toileting needs independently will be essential.

In addition to her advice, Cueva also described academic expectations and goals for kindergartens. Academically, children are expected to be familiar with numbers and be able to recognize some letters. Children should also be able to use writing and drawing tools and child-sized scissors with control and intention. Socially, children are expected to work cooperatively (listen to others, share and take turns), follow directions, regulate emotions properly and articulate feelings in words, among other skills.

Head teacher Peckie Peters posed and answered the following question: “What do we do at Bing that can support children in their transition to kindergarten?” Peters addressed the importance of Bing’s emphasis on the development of social and emotional skills. Fundamentally, children need to feel confident about who they are and how they can engage with other children and adults. Bing’s play-based program supports and encourages children to explore and develop essential lifelong skills such as self-regulation, perspective-taking, empathy, autonomy and strategies for entering play and connecting with others. Through these experiences, children gain the confidence to try new activities and feel successful in their endeavors. Lastly, Peters stressed the importance of looking at a child’s development as a continuum. Every child is different and it is important to take this into consideration when evaluating kindergarten readiness.

Next up on the panel was head teacher Nandini Bhattacharjya. To Bhattacharjya, Bing’s two hours of uninterrupted play are essential in developing academic readiness. Bhattacharjya assured parents that children’s attention span will gradually increase as children mature and learn to self-regulate. For instance, a child who can spend five minutes on block building at the beginning of the year will most likely be able to spend more time building as the year progresses. Through repeated experiences, children master skills, which helps them to develop their sustained interest and focus, all of which helps them in kindergarten. Furthermore, Bhattacharjya echoed Cueva’s comments about academic preparation for kindergarten. She emphasized the importance of strong fine motor skills and a correct pencil grip. To conclude, Bhattacharjya encouraged parents to live in the present and wait to discuss kindergarten until just a couple weeks before the start of the academic school year—otherwise children may think the change will take place soon.

Our fourth panelist Adrienne Lomangino, head teacher, explained why Bing is called a nursery school and not a preschool: “It’s not ‘pre’ anything,” she said. Since birth, children are naturally curious and are ready to explore and make sense of the world they live in. A nursery school experience gives children an opportunity to build a foundation to be successful in school and in life. Lomangino also advised parents to avoid expecting the transition to kindergarten to be a dramatic event. Every child is unique and they each have their own strengths and areas in need of support. Lomangino emphasized that the transition can be an ongoing process. She recommended that parents be positive and supportive during this period and let their children enjoy their time.

Jodie Harrier and Stephanie Han, kindergarten teachers at Nixon Elementary, described a typical day in kindergarten. At Nixon, children begin their day at 8 a.m. and engage in yoga or dance for...
about 25 minutes. A morning meeting follows to discuss children’s daily news, calendar and weather. The teacher then assigns writing and reading work to each child. Children can also choose to engage in animal studies, science, paint, blocks and group snack, among other activities. According to Harrier, kindergarten expectations have changed over the past 20 years, with higher expectations in reading, writing and math. Harrier noted that children may start kindergarten at different stages in their development. She reassured parents that children will learn and make progress in an environment with curriculum designed for them. Teachers are supportive and it is their goal to make school a fun learning experience for all children.

To support the transition and create a supportive learning environment at home, reading specialist Susan Chakos encouraged parents to read to their children every day. Any and all reading is encouraged, especially non-fiction, which is great for their young minds.

Katy Bimpson, principal at Herbert Hoover Elementary, concurred with Chakos about the importance of parents reading to their children. She encouraged parents to talk about the book and ask children questions to increase engagement and reading comprehension. For example, parents can ask, “What was your favorite part and why?” or prior to reading the book ask, “What do you think this book might be about?” to get children thinking and keep them engaged with the story. Bimpson also advised parents to find ways to help children gain independence. This can be accomplished by assigning children small jobs such as pouring their own milk or making their beds. By encouraging independence, children will develop a sense of pride and accomplishment. Bimpson believes parents should “allow [children] to fail and try again, and allow them to think about problems as opportunities.” Bimpson concluded by assuring parents that regardless of what kindergarten they attend, children will thrive and prosper with the love and support of their parents.

The third season of the performance series featured three performances: Peter Rabbit and Friends featuring California Theatre Center on Nov. 14; Sol y Canto on Dec. 15, 2015; Puppets and Pianos presented by the Fratello Marionettes and pianist Frank Lévy on April 9, 2016. Bing was also invited to co-present Sounds of Music from Asia featuring the Forbidden City Chamber Orchestra and local musicians with Stanford’s Center for East Asian Studies as part of the Stanford Pan-Asian Music Festival on Feb. 20, 2016 at the Bing Concert Hall.

The series aims to introduce young children to the performing arts. These early experiences open children’s minds, expand their knowledge of different cultures through music and dance and set the stage for a lifelong appreciation of the arts. We’d like to thank the families who have helped to support the performance series.

Bing teachers and staff also hold informal concerts in the school atrium throughout the year to bring the classrooms together for group singing experiences.
On Sunday, May 22, 2016, more than 600 Bing Nursery School families, current and alumni, spent the day at the school enjoying the annual Bing Children’s Fair. Fairgoers were entertained by The Bing School Band, composed of Bing parents, teachers and associate director Beth Wise on the guitar; the Mariachi Cardenal de Stanford; and the Stanford Mendicants. The Leland Stanford Junior University Marching Band closed the fair and was a huge hit with children and adults.

Over 200 parents prepared goods for the bake sale and the food booths. Cupcakes, brownies and sweets of all kinds were a hit, and nobody could pass up a taste from the wide variety of food, from American macaroni and cheese to sushi, Greek salad, Indian samosas and more. In addition, many businesses made donations, including food (especially cupcakes for our cake walk), volunteers to help staff the fair, as well as cash. Special thanks to our generous donors: Cheesecake Factory, DAVIDSTEA, Gerry’s Cakes, GNT Group, Grocery Outlet, Kathy’s Kreative Kakes, Martha’s Pastries, Oren’s Hummus – Belmont, Pizza My Heart, Sigona’s Farmers Market, Sprinkles, SusieCakes, TaskRabbit, Tava Indian Kitchen, The Dessert Studio, Tin Pot Creamery, Zume Pizza, the Walker family and many Stanford sororities and fraternities.

On the morning of the fair, approximately 200 alumni families joined the Bing staff for breakfast. It was wonderful to see and talk to so many alumni children, as well as their parents, some of whom are Bing alumni themselves.

We would like to thank our Bing Fair co-chairs, Dorothy An, Adriana Flores-Ragade and Meredith Zappert, for organizing a beautiful fair, as well as the over 300 parent volunteers who staffed the activity and food booths this year, and the Bing teachers and staff for their hard work. Proceeds benefit the Bing Nursery School Scholarship Fund.

FAIR CO-CHAIRS: Dorothy An, Adriana Flores-Ragade and Meredith Zappert

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n a winter day in December 2015, Bing held its 27th Annual Harvest Moon Auction, “Winter Wonderland.” The event, held at the Arrillaga Alumni Center on the Stanford campus, raised over $300,000 for the Bing Scholarship Fund, which provides assistance to over 20 percent of the children who attend the nursery school. As in past years, Helen and Peter Bing were strong supporters, with a generous gift of $50,000.

Auction attendees arrived on Dec. 5 and were treated to a beautiful winter wonderland, filled with snow globes, snowflakes and blue and white décor and were serenaded by Bing parents Nova Jimenez, vocal, and Yara Sellin, on piano, with a medley of winter-themed songs. Guests enjoyed the holiday-inspired cocktail, Holiday Citrus Punch, and came dressed in their winter best.

Over 600 exciting items were up for bid, including an autographed basketball signed by Steph Curry and Klay Thompson, a one-week getaway at the Palms in Costa Rica, a Maserati Ghibli for a weekend, donated by Ferrari Mase, a birthday party with head teacher Peckie Peters and associate director Beth Wise. The ever-popular Fund a Scholarship, a live bidding item with straight cash donations going directly to the Bing Scholarship Fund, raised over $35,000 that evening, with an additional $110,000 raised prior to the auction.

More than 40 events for children, families and adults were also auctioned off, including an Evening Dinner and Cocktail Cruise, Cookie Decorating for the Holidays Party, 1001 Nights, Soccer in the Park, Chaat Party, Harley Goat Farm Tour, Dad’s Night Out Poker Tournament and the Bing Campout. We appreciate the work and donations of parents in each classroom, who put together over 50 class baskets with themes including “Snowy Day Fun,” “Holiday Baking,” “Choo! Choo! All Aboard,” “Frozen Wonderland!” “Polar Exploration,” “Cooking for Little Taste Buds,” “Picnic Paradise” and “Doll Delight.”

The food, catered again this year by Weir & Associates Catering, was served in keeping with our winter wonderland theme, and featured chilled prawns, butternut squash soup shots, warm baked French brie and a chili bar. SusieCakes, Tin Pot Creamery and Peet’s Coffee & Tea donated the dessert and coffee for the evening. Other generous donors for the evening included Hal Morris and Alyssa Rapp, TaskRabbit, Hengehold Trucks, Balsam Hill and Tableart.

A big thank you goes out to our auction co-chairs, Adriana Flores-Ragade, Brigette Lau and Meredith Zappert, for their vision, leadership and dedication. We couldn’t have done it without them. We are also extremely grateful to our parent volunteers—over 200 strong—who worked on over 20 committees. A special thank you to those who donated to the auction and to those who attended. The tremendous dedication of our parents, Bing teachers and staff made the auction what it was—a tremendous success!

We look forward to seeing everyone again at this year’s auction, Saturday, Nov. 19, 2016.
Summary of Gifts to the 2015–2016 Annual Fund
Our Heartfelt Thanks For Your Continued Support!

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2015 – 2016 Annual Fund
Thanks to the contributions of Bing parents, friends and our staff members, we met our goal of $400,000 to help support our annual budget. We are deeply grateful for this generous support. We would like to extend a warm round of thanks to the parent fundraising chairs Masha and David Fisch, Kim and Jeff Jonker, Marnie and Karol Marcin, Lyla and Rory McInerney, Robyn and David Reiss, Stacy and Chris Philpot, Susie and Gideon Yu, classroom ambassadors and their committee members for their efforts and support. In 2015–2016, the participation of our current Bing families reached 62 percent.

The annual fund is an important part of the school budget. It supports general school operations, scholarships and our endowment. The campaign helps us close the gap between tuition and the actual cost of delivering our exemplary programs. It supports staff development, additional teachers in our classrooms, parent coffee talks and seminars, special events and high-quality materials. Our goal is for every family to participate in supporting the school—no gift is ever too small.

In 2016–2017, we are striving for 100 percent participation! Please make your gift now at https://bingschool.stanford.edu/giving/annual-fund.
The Bing Nursery School 28th Annual Harvest Moon Auction

Don’t be late for a very important date!

Saturday, November 19th, 2016

6:30pm

at the Frances C. Arrillaga Alumni Center
326 Galvez Street, Stanford University Campus
Reservations $25 per person - purchase online at bingschool.stanford.edu/hm or at the door.

Step through the looking glass and celebrate the evening with fine food, cocktails, tea and exciting silent and live auction items.

All proceeds benefit the Bing Nursery School Scholarship Fund.

If you would like to donate to this year’s auction, please visit us at bingschool.stanford.edu/hm. Please contact us at harvestmoon@stanford.edu or 650-723-4865.

We hope you’ll join us for tea!
Adriana Flores-Ragade, Margarita Golod and Meredith Zappert
Your 2016 Harvest Moon Auction Co-Chairs

Bing Nursery School, 850 Escondido Road
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