



5th Annual

EARLY CHILDHOOD STEM CONFERENCE

Science Technology Engineering Math

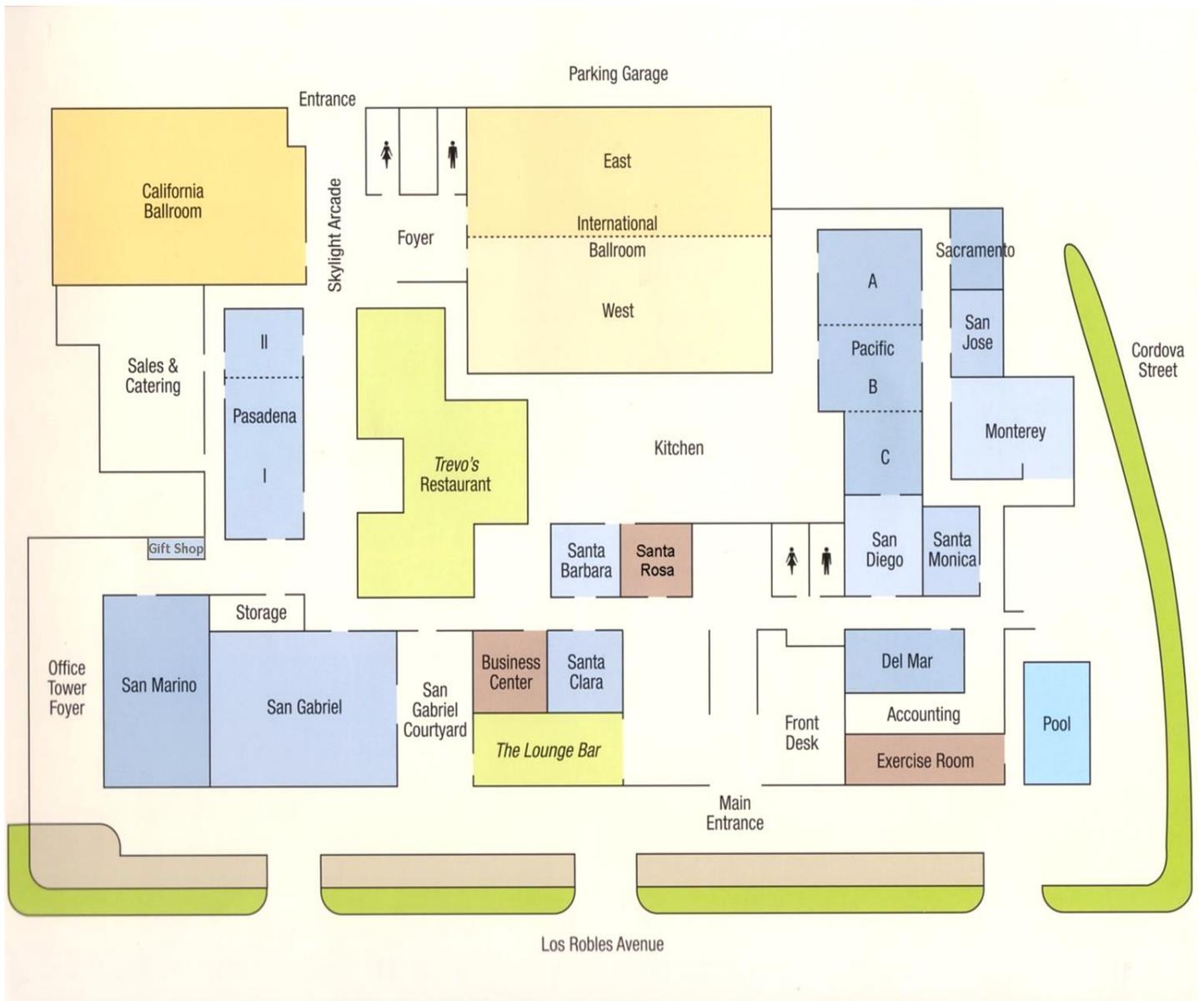
FEBRUARY 4 | 5 | 6

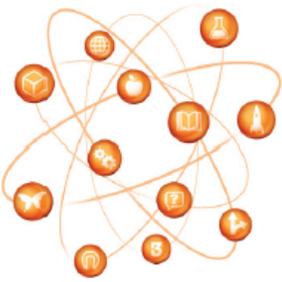
Pasadena, California



2016

Hilton Pasadena
168 South Los Robles Avenue | Pasadena CA 91101
626.577.1000





EARLY CHILDHOOD STEM CONFERENCE

Science Technology Engineering Math

WELCOME

The Future Begins Here!

To prepare today's children for the challenges of tomorrow, it is increasingly important that they have developmentally appropriate, inclusive and culturally sensitive approaches in science, technology, engineering and mathematics (STEM). Yet meeting the needs of an economically, ethnically and socially diverse student population — especially for the youngest — is challenging. And so, the Early Childhood Science, Technology, Engineering and Mathematics (ECSTEM) Conference was born.

Our goal is to tackle the challenges facing early childhood educators regarding STEM curriculum and instruction; to address the implications for early childhood pedagogy; and ultimately, to initiate a national movement focusing on STEM education for children ages birth to eight. To succeed, we need you: trusted educators, practitioners, researchers, and policy leaders who understand these challenges and are motivated to act on behalf of our children.

This year, as in the past, we have brought together keynote speakers, panelists, and presenters ranging from distinguished researchers, expert educators, and community leaders to inform and inspire early childhood education professionals and to provide an opportunity for business partners, community leaders, educators, politicians, practitioners, and researchers to network.

We hope you enjoy your experience and grow from your participation in the ECSTEM conference. We look forward to working together to promote and increase awareness of the importance of STEM education in early childhood.

Sincerely,

ECSTEM Conference Steering Committee

2016 ECSTEM CONFERENCE STEERING COMMITTEE

Susan Wood | Children's Center at Caltech | Executive Director & ECSTEM Conference Executive Chair

Tiffany Alva | THINK Together | Director of Early Learning & ECSTEM Conference Chair

Veronica Dayag | Children's Center at Caltech | STEM Curriculum Coordinator & ECSTEM Conference Coordinator

Sarah Tieu | THINK Together | ELMP Operations Coordinator & ECSTEM Operations Coordinator

Cinda Muckenthaler | Muckenthaler & Associates Inc. | ECE Consultant & ECSTEM Conference Friendly Classroom Coordinator

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Dr. Carrie Rothstein-Fisch | California State University Northridge | Professor

Seadra Chagolla | Children's Center at Caltech | Early Childhood Educator

Kheng Ly-Hoang | Mt. San Antonio Community College & California State University Los Angeles | Lecturer

Sowannarin Ly | Children's Center at Caltech | Early Childhood Educator & ECSTEM Conference Technician

Julie Wolf | Children's Center at Caltech | Board of Trustees

Dr. Alma Cortes | Children's Center at Caltech | Associate Director

Dr. Jean Barbre | Orange County Department of Education | Early Childhood Education Coordinator

The Early Childhood STEM Conference is brought to you by:



THE CHILDREN'S
CENTER AT CALTECH

Since 1972, The Children's Center at Caltech (CCC) has grown to become a national leader in STEM Early Education. CCC serves children ages six months through five years using a STEM based curriculum that utilizes a constructivist approach to plan, develop, and implement inquiry rich learning opportunities for our youngest learners. In addition, CCC conducts professional development workshops and shares research in STEM-based early childhood education.



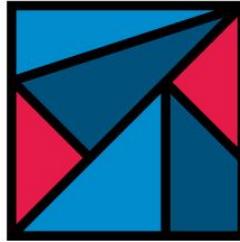
THINK
Together

THINK Together is a non-profit organization that supports the academic achievement of underserved students through after-school and summertime academic enrichment, and early learning programs in school districts throughout California.

THANK YOU TO THE 2016 ECSTEM CONFERENCE SPONSORS

PLATINUM

SPECIAL THURSDAY EVENING EVENT



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"There's nothing I believe in more strongly than getting young people interested in science and engineering, for a better tomorrow, for all humankind."

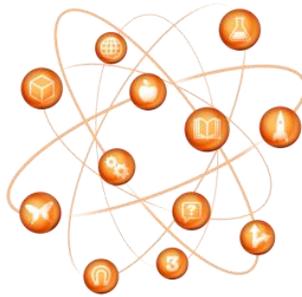


"What makes us human, I think, is an ability to ask questions, a consequence of our sophisticated spoken language."

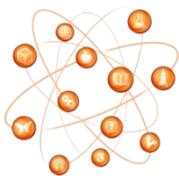
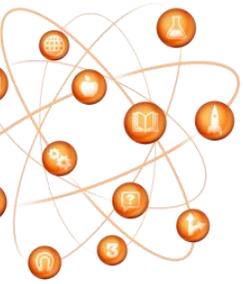
- Jane Goodall



- Bill Nye



"Mathematics, rightly viewed, possesses not only truth, but supreme beauty — a beauty cold and austere, like that of sculpture, without appeal to any part of our weaker nature, without the gorgeous trappings of painting or music, yet sublimely pure, and capable of a stern perfection such as only the greatest art can show. The true spirit of delight, the exaltation, the sense of being more than Man, which is the touchstone of the highest excellence, is to be found in mathematics as surely as poetry."

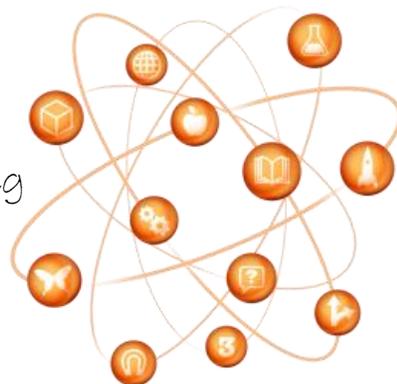


- Bertrand Russell



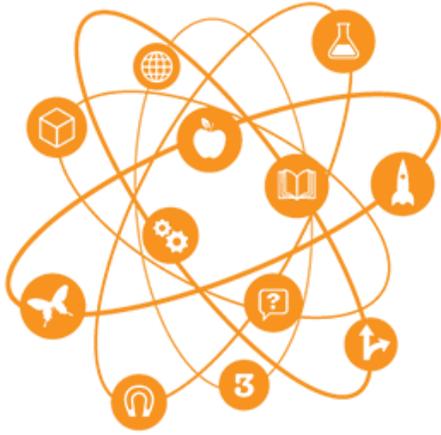
"Scientists have become the bearers of the torch of discovery in our quest for knowledge."

- Stephen Hawking



"Stand aside for a while and leave room for learning, observe carefully what children do, and then, if you have understood well, perhaps teaching will be different from before."

- Loris Malaguzzi



EARLY CHILDHOOD STEM CONFERENCE

Science Technology Engineering Math

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Name Badges (obtained at registration booths) are required for entrance to all keynotes, sessions, meals, and events.

Information

REGISTRATION

Registration is required for all attendees. The name badge issued with the paid registration is required for admission to all conference activities. Registration does not include the Thursday Special Evening Event or tours. All attendees, presenters, and exhibitors may pick up their registration materials at the Registration & Check In booths.

Additional Opportunities:

You may purchase tickets or sign up for any of the following events at registration, if available (space is limited):

Onsite Registration fees are as follows:

1-day (Friday or Saturday)	\$295.00
Student	\$80.00
2-days (Friday & Saturday)	\$355.00
Student	\$120.00
Group of 10+	20% off
Hall of Inquiry only	\$20.00
Thursday Special Evening Event	\$50.00
Student	\$30.00
Tour: The Huntington Library, Art Collections, & Botanical Gardens (Friday)	\$20.00
Student	\$10.00
Tour: The Children's Center at Caltech (Saturday)	\$20.00
Student	\$10.00

Payment Options:

Please make checks payable to **The Children's Center at Caltech**. We also accept cash, VISA, MasterCard, American Express, and Discover.

*All full day registrations allow admission to the Hall of Inquiry (exhibit hall), workshops, opening/keynote addresses, and includes both continental breakfast and lunch.

REFUNDS

No refunds will be made for cancellations after February 3, 2016.

PARKING

Hotel self-parking is available to attendees at a discounted rate of \$8 per vehicle per day and \$16 overnight. Hotel valet parking is \$10 per vehicle per day and \$18 overnight. Parking is paid upon departure. When leaving, let the booth attendant know that you attended the "**ECSTEM Conference**" to receive the discounted parking rate.

ENDORSEMENT DISCLAIMER

ECSTEM is pleased to present a wide variety of learning and informational opportunities available at this conference. ECSTEM does not, however, endorse products or services promoted in any of the sessions or exhibits. Opinions expressed are those of the presenters and do not necessarily reflect the position of ECSTEM. ECSTEM shall not be responsible for loss or injury from the purchase or use of goods and services offered at the conference.

PROGRAM CHANGES

Unexpected, last-minute changes to our program are inevitable. Signage of changes will be posted by the door of appropriate rooms.

CONFERENCE EVALUATION

We hope you will share with us your feedback and comments about this year's conference. The workshop evaluation sheet will be handed out at the beginning of every workshop and collected after each session.

“Education is a natural process carried out by the child and is not acquired by listening to words but to experiences in the environment.”

- Maria Montessori



What if
a Cat with a Hat
taught them This and That?

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never stops asking “What if?”



pbssocal.org

“Fall in love with some activity, and do it! Nobody ever figures out what life is all about, and it doesn't matter. Explore the world. Nearly everything is really interesting if you go into it deeply enough. Work as hard and as much as you want to on the things you like to do the best. Don't think about what you want to be, but what you want to do. Keep up some kind of a minimum with other things so that society doesn't stop you from doing anything at all.”

- Richard Feynman

Schedule of Events

Thursday, February 4

		Location
4:00 p.m. — 6:00 p.m.	Advanced Registration	Hilton Foyer & Skylight Arcade
5:00 p.m. — 5:10 p.m.	Welcome: Susan Wood & Tiffany Alva	International Ballroom
5:10 p.m. — 5:30 p.m.	Opening Address (Keynote Speaker: Dr. Russell Shilling, Ph.D.)	International Ballroom
5:30 p.m. — 7:00 p.m.	Expert Panel Discussion	International Ballroom
7:00 p.m. — 9:00 p.m.	Reception & Cocktail Hour (Sponsored by Options for Learning)	International Ballroom, California Ballroom & Skylight Arcade

Friday, February 5

7:00 a.m. — 9:00 a.m.	Continental Breakfast	Skylight Arcade
7:30 a.m. — 10:00 a.m.	Registration & Check In	Hilton Foyer & Skylight Arcade
8:30 a.m. — 10:00 a.m.	Opening Address (Keynote Speaker: Dr. Susan Hackwood, Ph.D.)	International Ballroom
10:00 a.m. — 10:30 a.m.	Break	
10:30 a.m. — 12:00 p.m.	Session I Workshops	Assigned Workshop Room
12:00 p.m. — 1:00 p.m.	Lunch Break	Skylight Arcade
1:00 p.m. — 2:30 p.m.	Session II Workshops	Assigned Workshop Room
1:30 p.m. — 3:30 p.m.	Tour of the Huntington Library, Art Collections, & Botanical Gardens	Hilton Main Entrance at 1:00 PM
2:30 p.m. — 3:00 p.m.	Break	
3:00 p.m. — 4:30 p.m.	Session III Workshops	Assigned Workshop Room
4:30 p.m.	Friday Workshops Conclude	

Saturday, February 6

7:00 a.m. — 9:00 a.m.	Continental Breakfast	Skylight Arcade
7:30 a.m. — 10:00 a.m.	Registration & Check In	Hilton Foyer & Skylight Arcade
8:30 a.m. — 10:00 a.m.	Opening Address (Keynote Speaker: Dr. Chip Donohue, Ph.D.)	International Ballroom
10:00 a.m. — 10:30 a.m.	Break	
10:30 a.m. — 12:00 p.m.	Session I Workshops	Assigned Workshop Room
12:00 p.m. — 1:00 p.m.	Lunch Break	Skylight Arcade
1:00 p.m. — 2:30 p.m.	Session II Workshops	Assigned Workshop Room
1:30 p.m. — 3:30 p.m.	Tour of The Children's Center at Caltech	Hilton Main Entrance at 1:00 PM
2:30 p.m. — 3:00 p.m.	Break	
3:00 p.m. — 4:30 p.m.	Session III Workshops	Assigned Workshop Room
4:30 p.m.	Conference Concludes	

Panel of Experts

Thursday, February 4

Location: International Ballroom at 5:00 p.m.



Dr. Russell Shilling, Ph.D.

Executive Director of STEM

U.S. Department of Education, Washington, D.C.

Russell Shilling is the Executive Director of STEM at the U.S. Department of Education, overseeing the Department's policies to drive innovation in STEM education and enhance interagency coordination. Dr. Shilling served as a Navy Captain, retiring after 22 years of service as a Navy Aerospace Experimental Psychologist focusing on education, training, and psychological health. Shilling was an early pioneer in the "serious" games movement and was responsible for award winning games for STEM education, medical training, and psychological health. He pioneered research to treat post-traumatic stress with virtual reality and graphic novel storytelling tools, and developed programs with Sesame Street Workshop that have helped military children adapt to traumas caused by deployments, injury, and grief. These programs have won numerous awards including Emmy nominations and the Parent's Choice Awards. Dr. Shilling also advocates for improved resources for autistic students and adults.



Dr. Susan Hackwood, Ph.D.

Executive Director

California Council on Science and Technology (CCST), Sacramento, CA

Susan Hackwood is the Executive Director of the California Council on Science and Technology (CCST) and Professor of Electrical and Computer Engineering at the University of California, Riverside. CCST is a not-for-profit corporation comprised of 200 plus science and technology leaders of the highest distinction. Sponsored by the key academic and federal research institutions in California, CCST advises the state on all aspects of science and technology including energy, information technologies, biotechnology, nanotechnology, stem cell research, healthcare technologies, climate change, disaster prevention technologies, intellectual property, technical workforce development, and education. With a strong interest in science and technology policy, Dr. Hackwood is involved with science and technology development in California, the U.S., Mexico, Taiwan, Vietnam and Costa Rica. She is the past Chair of the AAAS Committee on Science Engineering and Public Policy and was Chair of the Section on Societal Impacts of Science and Engineering. Since 2006, she has been a member of the IEEE Spectrum Editorial Board. She serves on the Board of Directors and consults on new product development for several technology companies. She co-founded and co-edited the Journal of Robotic Systems from 1984 to 2005.



Dr. Chip Donohue, Ph.D.

*Dean of Distance Learning and Continuing Education, Director, TEC Center, Member, Fred Roger Center Advisory Council
Erikson Institute, Graduate School of Child Development, Chicago, IL*

Chip Donohue is Dean of Distance Learning and Continuing Education and Director of the TEC Center at Erikson Institute in Chicago. He is a Senior Fellow and Member of the Advisory Board of the Fred Rogers Center for Early Learning and Children's Media at Saint Vincent College, where he co-chaired the working group that revised the 2012 NAEYC & Fred Rogers Center Joint Position Statement on Technology and Interactive Media as Tools in Early Childhood Programs serving children from birth through age 8. Chip is the editor of *Technology and Digital Media in the Early Years: Tools for Teaching and Learning*, co-published by Routledge/NAEYC in 2014, he and is editing a new book, *Family Engagement in the Digital Age: Early Childhood Educators as Media Mentors* to be published in 2016. In 2012, he received the Bammy Award and Educators Voice Award as *Innovator of the Year* from the Academy of Education Arts & Sciences. In 2015, he was honored as a children's media *Emerging Pioneer* at the Kids At Play International Awards. Donohue is finalizing a proposal for a chapter in a book on Digital Childhoods on the intersection of STEM and social/emotional development with a colleague in Australia and spoke about STEM and technology at a number of conferences last year including the Region 9 Head Start Conference on *Putting the "T" in STEM: What Educators Need to Know about Intentional and Appropriate Teaching with Technology*.

Panel of Experts

Thursday, February 4

Location: International Ballroom at 5:00 p.m.



Peggy Ashbrook

Early Childhood Science Teacher, The Early Years Columnist: Science and Children, Author: Science is Simple Alexandria, Virginia

Peggy Ashbrook is an early childhood science teacher and writer - the National Science Teachers Association's Early Years column in *Science & Children* and companion blog (www.nsta.org/earlyyears) and author of *Science is Simple* (2003, Gryphon House). She began teaching science to young children in her home as a day care provider in 1988. Peggy is active in professional associations - National Science Teachers Association (NSTA), National Association for the Education of Young Children (NAEYC), and NoVA Outside Early Childhood Committee, presenting at local area, and national conferences. She is a co-facilitator for the NAEYC Early Childhood Science Interest Forum (ECSIF). Currently, Peggy teaches children and mentors teachers in schools, and provides professional development on early childhood science inquiry. Her favorite place is where the worlds of early childhood and science learning overlap.



Kafi Blumenfield

*Executive Director
Discovery Cube Los Angeles, Los Angeles, California*

Kafi D. Blumenfield is the first executive director of the Discovery Cube Los Angeles (DCLA), a 71,000 square-foot museum campus developed by the Discovery Science Foundation on the former site of the Children's Museum of Los Angeles in the Hansen Dam Recreation Area. Blumenfield brings more than two decades of experience to DCLA as a nonprofit leader and advocate for social change. From 2007 to 2013, she was the president of CEO of Los Angeles' Liberty Hill Foundation, a \$6 million public foundation. During this time, she created a number of programs designed to train and elevate new community leaders, including Brothers, Sons, Selves and the Wally Marks Leadership Institute for Change. Other programs enacted under her watch increased the organization's donor diversity in philanthropy and refocused nearly \$5 million in annual grant investments. Blumenfield is an appointee to the California Commission on the Status of Women and Girls and serves on the boards of Tides Foundation, ARC, Southern California Grantmakers, and Planned Parenthood Advocacy Project in Los Angeles. Kafi Blumenfield is a member of the advisory board of the Los Angeles River Revitalization Corporation and the Draper Center for Community Partnerships, and on the selection committee for the James Irvine Foundation Leadership Awards. Her leadership has been recognized by organizations such as the National Women's Political Caucus LA Westside, National Council of Negro Women, and the National Gay and Lesbian Task Force.



Dr. Carrie Rothstein-Fisch, Ph.D.

*Professor, Department of Educational Psychology and Counseling
California State University Northridge*

Carrie Rothstein-Fisch is the Co-coordinator of the M.A. in Early Childhood Education and Professor in the Department of Educational Psychology and Counseling at California State University Northridge, located in the Northridge neighborhood of Los Angeles, California. Dr. Rothstein-Fisch teaches courses in: Issues and Theories in Early Childhood Education, Advanced Psychological Foundation of Education, Curriculum in Early Childhood Education, Lifespan Human Development, Research Methods and Assessment and Evaluation in Early Childhood Education. Rothstein-Fisch's research interests include cultural diversity, early childhood education, The California Department of Education/Child Development Division Faculty Initiative Project, Research Advisory Committee - Los Angeles County First Five/Los Angeles Universal Preschool, The Bridging Cultures Project, teacher professional development and the learning habits of successful college students. She is published in the *School Community Journal*, titled "The Intersection of Cultural and Achievement Motivation".

“The environment must be rich in motives which lead interest to activity and invite the child to conduct his own experiences.”

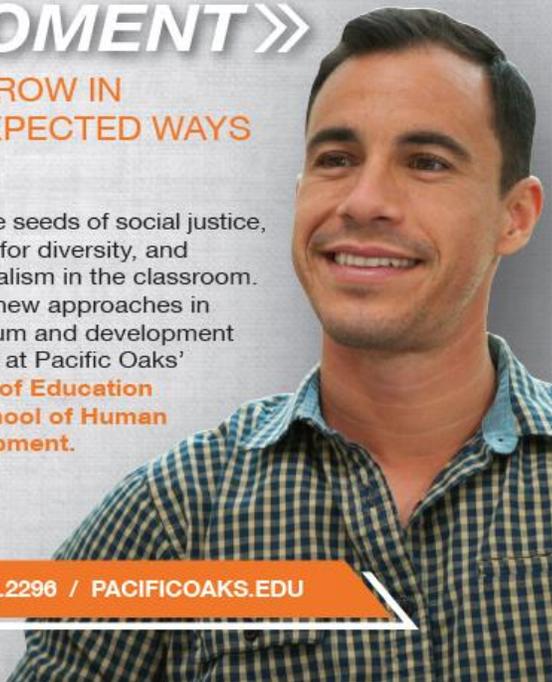
-Maria Montessori



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“If we teach today’s students as we taught yesterday’s, we rob them of tomorrow.”

-John Dewey

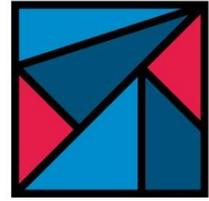
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Options
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Hall of Inquiry

February 4 | 5 | 6
Location: California Ballroom

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www.communityplaythings.com

Discount School Supply

Booth 15 & 16

www.discountsschoolsupply.com

Dream Big Science & Art

Booth 11 & 12

www.dreambigscience.com

Enhancing Literacy: Felt Stories & Song Props

Booth 29 & 30

www.facebook.com/enhancingliteracyfeltstoriesandsongprops/

Inside the Outdoor Foundation

Booth 17

ito.ocde.us

Kaplan

Booth 24 & 25

www.kaplanco.com

Kodo Kids

Booth 33

www.kodokids.com

Lakeshore

Booth 09 & 10

www.lakeshorelearning.com

LEGO Education

Booth 23

www.education.lego.com

NASCO

Booth 20, 21 & 22

www.enasco.com

National University

Booth 08

www.nu.edu

Options for Learning

Booth 04

www.optionsforlearning.org

Pacific Oaks College

Booth 06

www.pacificoaks.edu

PBS SoCal

Booth 03

www.pbssocal.org

Recess Revolution

Booth 14

www.recessrevolution.org

Springfield College

Booth 07

www.springfield.edu

Stratford School

Booth 05

www.stratfordschools.com

The Children's Center at Caltech

Booth 01

ccc.caltech.edu

THINK Together

Booth 02

www.thinktogether.org

Tout About Toys

Booth 26, 27 & 28

www.toutabouttoys.com

Trash for Teaching

Booth 13

www.t4t.org

ETA: hand2mind

Booth 31 & 32

www.hand2mind.com

Building a STEM Friendly Classroom

February 4 | 5 | 6

Location: California Ballroom

Are you uncertain about how to set up your classroom to maximize STEM instruction? Perhaps you are a veteran teacher looking for new ideas and tips to integrate STEM-related activities into your indoor and outdoor classroom space. Come discover how to build a STEM friendly classroom!

The STEM friendly classroom is set up like a “typical” classroom with areas that will look familiar to teachers and students alike. Visitors will be able to:

- Relate to the classroom as your own
- Expand your STEM-related experience with children using every day materials with minimal amount of additional items but with the emphasis of intentionality
- Reflect on your own teaching approach to STEM within your environment
- Collect sample lesson plans mapped to the Preschool Learning Foundations and DRDP

ORGANIZERS:

Cinda Muckenthaler | Muckenthaler & Associates Inc. | ECE Consultant

Jean Barbre | Orange County Department of Education | Early Childhood Education Coordinator

Elaine Coggins | Anaheim City School District | Director of Early Childhood Educator

Nellie Pedraza | Anaheim City School District | Early Childhood STEM Teacher

Cristina Blevins | Bellflower Unified School District | Early Childhood Director

Rochelle Santacruz | Bellflower Unified School District | Child Development Supervisor





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Personal Conference Planner

Friday, February 5

Session I: _____ Room: _____
First Choice

_____ Room: _____
Second Choice

Session II: _____ Room: _____
First Choice

_____ Room: _____
Second Choice

Session III: _____ Room: _____
First Choice

_____ Room: _____
Second Choice

Saturday, February 6

Session I: _____ Room: _____
First Choice

_____ Room: _____
Second Choice

Session II: _____ Room: _____
First Choice

_____ Room: _____
Second Choice

Session III: _____ Room: _____
First Choice

_____ Room: _____
Second Choice

Most workshop materials can be found on flash drive

Workshops

Friday, February 5

KEYNOTE SPEAKER 8:30 AM - 10:00 AM

Dr. Susan Hackwood, Ph.D.

Executive Director, California Council on Science and Technology (CCST)

WORKSHOP INFORMATION

To support your conference experience, workshop sessions have been categorized by topic area (Science, Technology, Engineering and Mathematics). Additionally, the target audience has also been specified for each workshop. Conference attendees may follow one topic area for an in-depth, content-rich focus on a particular subject matter, or may pick and choose among topics to sample the full complement of conference offerings. The following are the listing of session tracks and their abbreviations.

CONTENT	TARGET AUDIENCE	
S – Science	I – Infants	K – Kindergarten
T – Technology	T – Toddlers	FG – First Grade
E – Engineering	P – Preschool	SG – Second Grade
M – Mathematics	TK – Transitional Kindergarten	

SESSION I: 10:30 AM - 12:00 PM

“Spatial Thinking in Block Building”

Presenter: Beth Dykstra Van Meeteren, Ph.D.

Regents' Center for Early Developmental Education

Center for Early Education in STEM

University of Iowa

Room: **Pacific A**

Content: **E**

Target Audience: **P TK K**

Take a fresh look at unit blocks in your setting! Children's development of spatial thinking, essential in STEM, is contingent upon how you display, interact with, and document children's explorations.

“Hello Robo! Methods for Integrating Robotics Resources into the Early Childhood Curriculum”

Presenter: Wendy Brenneman, B.A.

Carnegie Science Center

Room: **Pacific C**

Content: **T**

Target Audience: **P TK K FG SG**

Can the use of real robots be appropriate for early childhood? This participatory session explores the value of integrating robotics as technology resources into STEM subjects, and across the pre-k curriculum.

“The Science of Sound”

Presenters: Vivian Belmont, B.A. & John Fitzgerald, B.A.

Dream Big Science and Art

Remo Inc.

Room: **Monterey**

Content: **S**

Target Audience: **I T P TK K**

Join us for an exploration into the Science of Sound! Using simple and complex instruments and a good dose of imagination, dive into the sound waves and rhythm, and discover the huge educational benefits of noise, music and everything in between.

“How is the Technology Element in STEM Handled in Natural Outdoor Classrooms?”

Presenter: Eric Nelson

Child Educational Center

Room: **Pasadena II**

Content: **T**

Target Audience: **P TK K**

Through photographs and lively discussion, come and see what the Technology element in STEM looks like at the Child Educational Center's model Outdoor Classroom program in La Canada.

“Supporting STEM Learning in Early Years: Using Nature Connections to Strengthen Foundational Understanding in STEM”

Presenter: Susan Wirth

Dimensions Educational Research Foundation

Nature Explore

Room: **Pasadena I**

Content: **S T E M**

Target Audience: **I T P TK K FG SG**

Discover how evidence-based, nature-rich outdoor classrooms are supporting STEM learning for young children. Receive outdoor classroom design principles. Engage in field-tested activities that support skill development across ALL learning domains.

“Let’s Explore Our Community”

Presenters: Shannon Huston, M.A. & Ashely Ghiuzelian
Pretend City Children’s Museum

Room: San Marino

Content: S

Target Audience: I T P TK K FG SG

Young children naturally approach the world from a scientific mindset. We will be discussing ways that young children can better explore their community through a guided scientific inquiry.

“Mouse Paint/Pintura de Raton”

Presenters: Maria Elena Serratos, M.A. & Laura Schmidl, B.A.
Discovery Cube Orange County
Discovery Cube Los Angeles

Room: San Diego

Content: S

Target Audience: I T P TK

This hands-on Spanish workshop will integrate a storybook into science-based lessons for the early learner, including: color recognition, primary and secondary colors, the scientific method, observation, and separation of colors.

“Providing a STEM Environment for Toddlers”

Presenters: Veronica Hendricks, B.A. & Janet Nunez, B.A.
The Children’s Center at Caltech

Room: Santa Barbara

Content: S T E M

Target Audience: I T P

Join us as we present our work with toddlers (18-30months) in a stem enriched environment. We will offer ideas on how to set up your environment to provide stem experiences that are developmentally appropriate and fun!

“Project-Based Learning: EVERY DAY for EVERY CHILD”

Presenter: Stephanie Lester
Lancaster School District

Room: Santa Clara

Content: S

Target Audience: P TK K FG SG

Experience first-hand how Project-Based Learning through science activities will bridge the gap between all curricular areas while offering highly engaging activities in which every student will experience SUCCESS!

“Using Technology to Enhance Children’s Learning”

Presenter: Osnat Zur, Ph.D.
WestEd

Room: Santa Rosa

Content: T

Target Audience: P TK K FG SG

How can we use technology wisely and effectively in early childhood programs? We will examine examples, review recommendations by

NAEYC and the Fred Rogers Center, and discuss opportunities and challenges.

“Exploring Engineering Possibilities”

Presenters: Olivia Garcia, B.A. & Gretchen Kammerer
The Children’s Center at Caltech

Room: Del Mar

Content: E

Target Audience: P TK

Follow a group of three year olds in a STEM based program as they make connections and construct knowledge in a yearlong exploration of scale and structure focusing on stability through the process of engineering.

“Immersing K - 2 Students in STEM with the support of iPads”

Presenters: Laurie Sullivan, Ph.D. & Andrea Donovan
Barrett Elementary School, a NASA Explorer School

Room: Sacramento

Content: S T E M

Target Audience: K FG SG

In this interactive session we will share how we use iPads with our K – 2 students to scaffold understanding of STEM investigations and as a tool to develop academic language to communicate their learning. Participants will have hands-on experience with iPads and a variety of Apps. iPads will be available for use during the workshop.

“Cooking with Children”

Presenter: Kunaal Kumar, M.A.
Orange Coast College, Early Childhood Lab School

Room: Pacific B

Content: S T E M

Target Audience: P TK K FG

Even if you do not see yourself as a chef, with children you can create tasty meals and snacks with children. Participants will learn how to fully support children in cooking experiences, utilizing the basic cooking skills sequences; children can prepare their own food from proper use of tools and simple skills, recipes, up to creating full meals. Through cooking children explore social, science, math, literacy, creativity, and emotional development.

“Science and Engineering Practices: Inquiry with Young Children”

Presenter: Peggy Ashbrook, B.A.
Early Childhood Science Teacher
The Early Years Columnist, Science and Children

Room: San Gabriel

Content: S E

Target Audience: P TK K FG SG

Science and Engineering Practices: Inquiry with Young Children” delves into the Science and Engineering Practices and the NSTA/NAEYC EC Science Education position statement as they apply to preschool program teaching. Participants use photos of children at work to

identify the practice and relate to the principles and declarations of the position statement.

SESSION II: 1:00 PM - 2:30 PM

“Investigation Based Teaching Practices to Foster STEM”

Presenter: Diane Spahn

Kodo Kids

Room: **Pacific A**

Content: **S T E M**

Target Audience: **P TK K FG SG**

Come play with intriguing materials and learn 8 Investigation-Based Teaching Practices™ to facilitate children’s open-ended STEM investigations. Practice intentional and responsive teaching strategies, including observation-based facilitation, environmental and verbal facilitation strategies.

“A Night Out with Math-Supporting Parents and Students”

Presenter: Diana Zargoza, M.A.

Sacramento City College

Room: **Pacific B**

Content: **M**

Target Audience: **I T P TK K FG SG**

Engaging and empowering parents is critical to increasing student success. This workshop focuses on educating and informing parents about strategies and activities they can use at home with their children.

“Force & Motion: Spatial Awareness with Infants”

Presenter: Amanda Lawson, B.A.

The Children’s Center at Caltech

Room: **Pacific C**

Content: **S M**

Target Audience: **I T**

Infants are curious learners. They enjoy investigating and exploring how materials and their bodies fit into different spaces. This workshop will give an insight into how force and motion was implemented into a curriculum for infants and will showcase ideas for your classroom.

“Supporting Dual Language Learners- and All Learners- Using STEM Learning Experiences”

Presenters: Kimberly Brennehan, Ph.D. & Betty Zan, Ph.D.

Heising-Simons Foundation

University of Northern Iowa

Room: **San Marino**

Content: **S T E M**

Target Audience: **P TK K FG SG**

Learn about preschool programs that support dual language learners using STEM content and practices. Lively discussion and small group experiences will illustrate strategies to foster STEM learning for every child.

“How Does STEM Work in the Pre-Kindergarten Classroom? A Head Start Case Study”

Presenters: Jale Aldemir, Ph.D. & Hengameh Kermani, Ph.D.

University of North Carolina, Wilmington

Room: **San Diego**

Content: **S T E M**

Target Audience: **P**

This workshop aims to report results from a small scale research study that focuses on STEM integration in a Head Start program. Participants will be introduced to different curriculum topics and developmentally appropriate ways of revolving early childhood curriculum around STEM subjects.

“Energy is the Stuff that gives you power! Uncovering the Laws of Motion through Inquiry and Experimentation with Incline and Motion”

Presenters: Kacey Daveport, M.A. & Jennifer Kesselring

Riverfield Country Day School

Room: **Santa Barbara**

Content: **S M**

Target Audience: **P**

Physics in pre-k? Of course! Inquiry, theory-building, experimentation, and learning comes to life as children discover and represent physics concepts through investigative play with incline, momentum, speed, and distance.

“Coding Skills in Preschool”

Presenters: Candi Schreuders & Monisha Gupta

Stratford School

Room: **Santa Clara**

Content: **T M**

Target Audience: **P**

Come learn how Stratford School teaches computer coding skills beginning in preschool. We will share lessons and ideas on how our teachers prepare the students for our advanced computer science curriculum.

“Building the Foundations of STEM Learning and Curriculum in an Outdoor Classroom with Infants and Toddlers”

Presenter: Cathy Bell

Child Educational Center

Room: **Del Mar**

Content: **S T E M**

Target Audience: **I T**

Children are born scientists! Discover the ways that STEM learning is supported in an Outdoor Classroom with infants and toddlers and how teachers can facilitate and articulate foundational skill development.

“That Can Really Hurt: Weapons as Learning Tools”

Presenters: Susan Kim, B.A. & Cindy Nelsen

The New School-West

Room: **Santa Rosa**

Content: **S M**

Target Audience: **P TK K**

Discover how a group of children utilized their knowledge of tensile strength, cause and effect, and kinetic energy to confront the dismissal of weapon play in the preschool environment.

“Exploring Systems & Interactions”

Presenters: **Olivia Garcia, B.A. & Gretchen Kammerer**

The Children's Center at Caltech

Room: **Pasadena II**

Content: **E**

Target Audience: **P**

Follow a group of three year olds in a STEM based program as they make connections and construct knowledge in a yearlong exploration of scale and structure focusing on stability through the process of engineering.

“Digital Technology in ECE: Is it Effecting Kids Brains?”

Presenter: **Carrie Lynne Draper, M.Ed.**

Readiness Learning Associates

The Children's Center at Caltech

Room: **Sacramento**

Content: **T**

Target Audience: **P TK K FG SG**

This workshop will discuss the ‘Swipe & Scroll Generation’ and what every educator needs to know. What apps and games are appropriate to use? How soon can coding, programming and robotics lessons begin? Merging the “E” and “T” in STEM. Come find the balance and participate in some fun engineering and tech activities that promote brain growth and the right MINDSET!

WORKSHOPS: 1:00 PM - 4:00 PM

“Intentional Environments”

Presenter: **Monica Dolan, M.A.**

The Children's Center at Caltech

Room: **San Gabriel**

Content: **S T E M**

Target Audience: **I T P**

In this workshop, we will be looking at what intentional environments are. This will help educators understand the “why” behind materials and spaces and how to select the proper materials based on the child’s interests and needs.

“Splash! The Study of Water: Toddlers 12-36 months”

Presenters: **Linda Wilbur & Erica Contreras**

East Los Angeles College

Room: **Monterey**

Content: **S**

Target Audience: **I T**

Hands-on workshop linking theory, standards and practice together. Get ready to get wet. Lecture, workshop and documentation of what the "Study of Water" looks like with infants and toddlers (12-36 months)

“Designer’s Challenge”

Presenter: **Shalek Chappill-Nicholas, M.S.**

Resource Area for Teaching, RAFT

Room: **Pasadena I**

Content:

Target Audience: **P TK K**

RAFT has numerous raw materials sometime we get puzzled as to how we should use them in the class. This make and take workshop is designed to demonstrate how raw materials can be used to enhance or teach STEM lesson (s) in the classroom. Participants will have the opportunity to reflect on how raw materials can enhance their learning environment.

SESSION III: 3:00 PM - 4:30 PM

“Let Materials Lead the Way”

Presenters: **Viki Stathopoulos, M.Ed. & Mindy Schwartz**

Trash for Teaching

Room: **Pacific A**

Content:

Target Audience: **P TK K FG SG**

In this workshop, educators will learn how to incorporate open-ended materials into STEM learning opportunities. You’ll be amazed at how ‘trash’ can be upcycled into fun teaching tools!

“Why Reggio?”

Presenters: **Elmida Baghdaserians, Ph.D. & Veronica Getskow, Ph.D.**

Los Angeles Valley College

Room: **Pacific B**

Content:

Target Audience: **I T P TK K FG SG**

Everyone is always talking about Reggio. So what is Reggio and why is it so important in the field of early childhood education.

“STEAM Ahead”

Presenters: **Marilee Cosgrove & Daniela Arbizzi**

Fullerton School District

Room: **Pacific C**

Content: **S T E M**

Target Audience: **P TK K FG SG**

Integrating a developmentally appropriate Reggio inspired constructivist approach Maker Space and technology center in your classroom. Discover how utilizing these experiences deepen concept development through individual and collective creativity and collaboration.

“Young Engineers Investigate and Create, Using Inquiry-Based Learning and Critical Thinking”

Presenter: **Lia Doron-Mizrahi, M.Ed.**

Educational Consultant

Room: **San Marino**

Content: **E**

Target Audience: **P TK K FG SG**

Explore a play-based and project-approach curriculum, creating an environment that stimulates engineering abilities. Emphasizing investigation and exploration as young engineers use Inquiry-Based learning methods, problem solving, critical-thinking and peers.

“The Early Childhood Classroom: Your Everyday STEM Lab”

Presenters: Ed Sudario & Alesha Henderson

Lakeshore Learning Materials

Room: San Diego

Content: S T E M

Target Audience: I T P TK K FG SG

Using everyday materials and a dose of creativity to introduce STEM. Discover the STEM learning opportunities in your classroom! Using recycled material, cardboard and other simple items you have in your classroom, we will combine imaginative exploration with hands-on problem solving.

“Helping Children Construct Mathematical Understanding Through iPad Integration”

Presenter: Jenine Almahdi, M.A.

Polytechnic School

Room: Santa Barbara

Content: T M

Target Audience: K FG SG

As students build ownership of their learning, working with iPads deepens engagement with opportunities to be creative. I will share effective apps and lesson ideas applicable for K-5 classrooms.

“Science Lessons for Developing Young Children’s Sense of Wonder”

Presenter: Ramoncito Casillan, M.S.

Department of Science Education

Room: Santa Clara

Content: S E

Target Audience: K FG SG

We will share hands-on activities that engage teachers and their students in exploring science in their everyday world and that are appropriate for preschool and early elementary school students.

“The Air Around You”

Presenter: Denise Soderlund Brace

FOSS/Retired from Central School District

Room: Santa Rosa

Content: S

Target Audience: I T P TK K FG SG

Let’s discover the air around us. We can manipulate and observe the air directly and indirectly, while engineering such devices as parachutes. Engage in an engineering challenge.

“Sensorial Learning with Infants”

Presenter: Eloisa Pagsisihan, B.A.

The Children’s Center at Caltech

Room: Del Mar

Content: S M

Target Audience: I T

Did you know that humans have a lot more than five senses? There are at least nine senses and most researchers think there are more than twenty-one! During this workshop, we will delve into infants and toddlers exploration through sensorial learning. We will focus on the following senses: balance, temperature, kinesthetic, pain, hearing, sight, taste, touch, smell, and thirst and hunger.

“How Might Technology be used in the Preschool Classroom to Promote the Acquisition of Literacy and Numeracy Knowledge? Lessons from a Study of the Use of Technology by Young Children in Headstart Classrooms”

Presenters: Christina A. Christie, Ph.D., James Stigler, Ph.D. & Karen Givvin, Ph.D.

University of California, Los Angeles

Room: Sacramento

Content: T M

Target Audience: P

Most early childhood researchers and educators agree that young children should become skilled at using technology. This presents a challenge to early childhood educators as they decide how and what to use to in the classroom to accomplish this goal. We conducted a study examining how preschool children used an app designed to promote literacy and numeracy and the learning outcomes associated with using the app. We observed that children want to use technology that promotes active participatory learning and that the use of technology in preschool should be facilitated by educators. We recommend that in order for technology to produce positive learning outcomes, it should be used to support developmentally appropriate learning activities and promote social interaction.

“Engineering & Social Skills”

Presenter: Seadra Chagolla, B.A.

The Children’s Center at Caltech

Room: Pasadena II

Content: E

Target Audience: P TK K

We will present a powerpoint on our year long journey and exploration of scale and structure through the lens of the engineering design process, and share how the language of engineering supported social emotional growth and development.

"Imagination is more important than knowledge. For knowledge is limited, whereas imagination embraces the entire world, stimulating progress, giving birth to evolution."

-Albert Einstein



The next big thing from Silicon Valley is a school.

Founded in 1999 in Silicon Valley, Stratford School is expanding to Southern California. Stratford provides an unparalleled education where children are inspired to be creative problem solvers, innovators, and leaders.

Beginning in Preschool, our STEAM -infused curriculum (science, technology, engineering, art, and math) is enhanced with foreign language and physical education. Stratford School is the perfect balance...where tradition meets 21st Century learning.



**STRATFORD
SCHOOL**

Early Childhood STEM Conference Schedule

"Coding Skills in Preschool"

Friday, Feb. 5 @ 1 PM

Presenters: Candi Schreuders & Monisha Gupta

"Lead and Transform STEM: A Leadership Roadmap"

Saturday, Feb. 6 @ 1 PM

Presenters: Sherry Adams & Dipaliben Bhatt

Visit us at the Hall of Inquiry for more information.

Coming to Melrose and Pasadena, Fall 2016

Preschool - 8th Grade · (323) 988-9505 · StratfordSchools.com/SoCal · *The Curiosity to Reach. The Courage to Grasp.™*

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"One seeks to equip the child with deeper, more gripping and subtler ways of knowing the world and himself."

- Jerome Bruner

Workshops

Saturday, February 6

KEYNOTE SPEAKER 8:30 AM - 10:00 AM

Dr. Chip Donohue, Ph.D.

*Dean of Distance Learning and Continuing Education, Erikson Institute, Graduate School of Child Development
Director, TEC Center
Member, Fred Roger Center Advisory Council*

SESSION I: 10:30 AM - 12:00 PM

“IT MATTERS... Exploring Vocabulary Related to Solids, Liquids, and Gases”

Presenters: Carrie Rothstein-Fisch, Ph.D. & Katie Leon, Ph.D.
California State University, Northridge

Room: Pacific A

Content: S T E M

Target Audience: P T K K

In this workshop, participants will explore one type of matter with their tablemates (either solids, liquids, or gases) to uncover vocabulary that is likely to help children understand some basic properties of matter.

“Correlation between Math and Music in Early Childhood Music Education”

Presenter: Dayita Datta, B.A.
The Children's Center at Caltech

Room: Pacific B

Content: M

Target Audience: I T P T K K F G S G

Ear training for young children using musical pattern recognition, which is an integral part of math skill. Pattern recognition through song-tales, echo songs, folk dance, tap, clap, and playing barred and percussion instruments.

“Hello Robo! Methods for Integrating Robotics Resources into the Early Childhood Curriculum”

Presenter: Wendy Brenneman, B.A.
Carnegie Science Center

Room: Pacific C

Content: T

Target Audience: P T K K F G S G

Can the use of real robots be appropriate for early childhood? This participatory session explores the value of integrating robotics as technology resources into STEM subjects, and across the pre-k curriculum.

“The Physics of Ramps”

Presenter: Diane Spahn
Kodo Kids

Room: Monterey

Content: S E

Target Audience: I T P T K K F G S G

Come play with ramps - learn basic principles of everyday physics, how children learn STEM skills by playing with ramps and how to foster critical thinking in young children.

“Inquiry-Based Learning in Botanical Garden Education”

Presenter: Courtney Allen, M.S.
The Huntington Library, Art Collections, & Botanical Gardens

Room: Pasadena I

Content: S M

Target Audience: P T K K F G S G

During this interactive session with the Huntington Gardens staff, we will discuss informal learning frameworks and field trends, sample initiatives, and the critical role of young children in building institutional focus.

“STEM Begins in Early Childhood”

Presenter: Moises Roman, B.A.
UCLA Early Care and Education

Room: Pasadena II

Content: S T E M

Target Audience: P

This workshop will provide a unique look into how a gentle introduction to science learning stands to make an impact on a child's future, leading to a lifelong enthusiasm for exploration into the wonders of science.

“STEM in Cooking: Exploring the Beginnings of Chemical Engineers”

Presenter: Beth Dykstra Van Meeteren, Ph.D.
*Regents' Center for Early Developmental Education
Center for Early Education in STEM*

Room: San Marino

Content: S T E M

Target Audience: P T K K F G S G

Learn how young children develop a beginning awareness of how ingredients interact as they engineer ratios of ingredients and processes in cooking to arrive at a satisfying and edible result!

“Planting the Seeds: Exploring STEM in the Garden with Toddlers”

Presenter: Michelle Capistrand, B.A.

Early Childhood Educator | Infant-Toddler Specialist

Room: San Diego

Content: S T E M

Target Audience: P TK K FG SG

This workshop serves as an overview of ECSTEM concepts that appeal to infants and toddler and how describes how ECSTEM concepts can be practically applied in a toddler curriculum through exciting gardening experiences.

“STEAM: Science Technology, Engineering, Art, and Math”

Presenter: Yolanda Carlos, M.A.

Pacific Oaks College

Room: Santa Barbara

Content: S T E M

Target Audience: K FG SG

Science, Technology, Engineering, Art, and Math: Pacific Oaks College a leader in quality ECE programs will be offering an ECE Specialization as part of learning for early childhood educators. The STEAM Specialization will be based on foundational principles aligning with California Common Core.

“Early Childhood STEM Instruction: Identifying Roots and Supporting Growth”

Presenter: Emily Slusser, Ph.D.

San Jose State University

Room: Santa Clara

Content: S T E M

Target Audience: P

This workshop aims to bridge research and practice through a series of demonstrations, activities, and discussions exploring children’s thinking and the role of language in STEM development and instruction.

“Public Media Innovative Approaches to Early Learning”

Presenter: Susie Grimm, M.A.

PBS SoCal

Room: Santa Rosa

Content: T

Target Audience: I T P TK K FG SG

This session will include insights as to what research says about technology, media and young children. Young children face new challenges at every age and stage—that’s why it’s so important to help them build the skills necessary to succeed in kindergarten and elementary school. This session will focus in the new PBS KIDS transmedia property - Peg + Cat, to spark young children’s interest in math and science, open doors to future studies, and send the message that everyone can do STEM.

“The Engineering Design Process from Infants to Preschool”

Presenters: Alma Cortes, Ph.D. & Veronica Dayag, M.A.

The Children’s Center at Caltech

Room: Del Mar

Content: E

Target Audience: I T P TK K FG SG

What is the “Engineering Design Process”? Join us as we take a look at the process of ask, imagine, plan, create and improve with infants, toddlers, and preschoolers.

“Developing Inquiry Using Science & Estimation”

Presenter: Diana Zargoza, M.A.

Sacramento City College

Room: Sacramento

Content: S M

Target Audience: P TK K FG SG

Fostering a sense of excitement and curiosity is a critical component to helping children develop. This hands-on approach to math and science will stimulate minds young and old.

“Big Outdoor Science on a Shoestring Budget”

Presenter: Vivian Belmont

Dream Big Science and Art

Room: San Gabriel

Content: S

Target Audience: I T P TK K FG SG

Ignite imagination with groundbreaking ideas on science education on a grand scale. Find out how to implement an outdoor and indoor science program on a shoestring budget!

SESSION II: 1:00 PM - 2:30 PM

“Tinkering with STEAM Education”

Presenters: Lauren Weatherly, M.A. & Alex Cruickshank, M.A.

Boulder Journey School

Room: Pacific A

Content: S

Target Audience: I T P

Ignite imagination with groundbreaking ideas on science education on a grand scale. Find out how to implement an outdoor and indoor science program on a shoestring budget!

“Lead and Transform STEM: A Leadership Roadmap”

Presenters: Sherry Adams & Dipaliben Bhatt

Stratford School

Room: Pacific B

Content: S T E M

Target Audience: P TK K FG SG

Abracadabra! Teachers can work magic with STEM education through supportive leadership and professional development. Learn how to create a culture of innovation by removing barriers for teachers.

“Hydroponic Gardening in a Preschool Classroom”

Presenters: Jennifer Kesselring & Kacey Davenport, M.A.

Riverfield Country Day School

Room: Pacific C

Content: S M

Target Audience: P

This workshop will explore ways in which hydro and aqua-ponic gardening compelled children's inquiry, investigation, problem solving, and documenting in a preschool classroom.

“Loose Parts Engaging the California Foundations of Mathematics”

Presenters: Tiffany Alva, B.A., Rochelle Santacruz, B.A. & Jean Barbre, Ph.D.

THINK Together

Bellflower Unified School District

Orange County Department of Education

Room: San Marino

Content: M

Target Audience: I T P TK K

Learning how mathematics can be incorporated into your classroom through fun, engaging activities. Learn the components of math (number sense, algebra and functions, measurement, geometry, and mathematical reasoning) and how to plan intentional play-based experiences to make learning math fun!

“The Next Generation Science Standards (NGSS) for Kindergarten – 2nd Grade Teachers”

Presenters: Laura Schmidl, M.A. & Maria Elena Serratos, B.A.

Discovery Cube Los Angeles

Discover Cube Orange County

Room: San Diego

Content: S

Target Audience: K FG SG

Discovery Cube presents an interactive introduction to the Kindergarten through 2nd Grade Next Generation Science Standards (NGSS), especially focusing on the technology of the physical sciences and engineering practices.

“MIME Time! Minds in Motion and Exploration”

Presenters: Tracy Robinson, Michele Janette, Maria Fanianos, Lien Mai

Poway Unified School District,

Early Childhood Development & Education

Room: Santa Barbara

Content: S T E M

Target Audience: P

Join us for MIME TIME! Minds In Motion & Exploration (MIME) is an innovative, child-led, project-based method of delving deeper into all things STEM.

“Full STEAM Ahead! Brain Appropriate Practice for Children Learning Science, Technology, Engineering, and Math”

Presenters: Regina Lamourelle, Ph.D., Chantal Lamourelle, Elizabeth Stephens

Santiago Canyon College

Room: Santa Clara

Content: S T E M

Target Audience: P TK K FG SG

This hands-on workshop examines development and skills essential for critical thinking in S.T.E.A.M. curriculum. Examples will be shared about the role the arts play in organizing brain pathways.

“Physical Science with Young Children”

Presenter: Kunaal Kumar, M.A.

Orange Coast College Early Childhood Lab School

Room: Santa Rosa

Content: S

Target Audience: P TK K

Physical science, “do those words scare you as a teacher? Science is everywhere and children need the opportunity to explore this phenomenon through stimulating environments and curriculum, to bring out their inner scientist.

“Documentation for Beginning Teachers”

Presenter: Jenne Ring, M.A.

Pasadena City College

Room: Del Mar

Content: M

Target Audience: I T P

Applying documentation techniques for beginning Early Childhood Teachers or Teachers with no experience using Documentation. Using documentation to communicate with parents and extend children's learning.

“Early Math Skills, Beginning at Birth”

Presenter: Christina Nigrelli

ZERO to THREE, Western Office

Room: Sacramento

Content: M

Target Audience: I T P TK

Early math skills develop from birth, through everyday interactions with parents and caregivers. Come learn how daily routines support early numeracy and spark a love of math starting from day one!

“Using Manipulatives to Promote S.T.E.A.M in the ECE Classroom”

Presenters: Linda Kahrs & Bill Kahrs

Tout About Toys, Inc.

Room: Pasadena II

Content: S T E M

Target Audience: I T P TK K FG SG

In this interactive workshop, participants work together in groups to create/define S.T.E.A.M related activities using classroom manipulatives. Educators will learn how manipulatives can easily be turned into a S.T.E.A.M activity.

WORKSHOPS: 1:00 PM - 4:00 PM

“Inclined to Lend a Hand: Explaining and Visualizing STEM Concepts from *The Little Engine that Could* with American Sign Language (ASL)”

Presenters: James Maloney, M.S. & Julius Su, Ph.D.
Caltech Center for Teaching, Learning, & Outreach

Room: **San Gabriel**

Content: **S T E M**

Target Audience: **I T P**

Communicating simple machines with hands-on activities and hands-on language. Practice ASL STEM strategies that also promote pro-social classroom management. Walk away with your experiences through the collaborative learning app, SKIES.

“Exploring STEAM Across the Curriculum”

Presenters: Anna Gaiter, M.A. & Milagro Garciga
Plainview Academic Charter Academy

Room: **Monterey**

Content: **S T E M**

Target Audience: **K F G S G**

Engage in hands-on activities that will increase your knowledge of STEM by integrating the curriculum with the use of children’s literature.

“Enhancing STEM through Spatial Understandings”

Presenter: Mary Jo Pollman, Ph.D.
Metropolitan State University of Denver

Room: **Pasadena I**

Content: **S T E M**

Target Audience: **I T P T K**

Spatial and geometric understandings are a predictor of performance in the STEM fields. This hands on workshop will utilize creative spatial activities in the Head Start domains as well other standards based activities.

SESSION III: 3:00 PM - 4:30 PM

“Connections Between David Hawkins and Loris Malaguzzi: Messing About Diggum the Fish”

Presenters: Alex Cruickshank, M.A. & Lauren Weatherly, M.A.
Boulder Journey School

Room: **Pacific A**

Content: **S T E M**

Target Audience: **T P T K**

This workshop will feature stories using high technology and low technology to support children’s investigations at Boulder Journey School. Participants will have the opportunity to mess about with relevant ideas.

“Farm to Table Baby Mama: Organic Recipes to STEM relationships”

Presenters: Patricia Wong, Erica Solum & Janette Baeza

Farm to Table Family and Farm to Table Baby Mama PBS | YouTube Cooking Channel

Room: **Pacific B**

Content: **S T E M**

Target Audience: **I T P T K K F G S G**

In this workshop, build a foundation of STEM principles with healthy gardening and cooking activities designed to spark children’s imaginations through hands-on learning.

“Culture Infused STEAM”

Presenters: June Aquino, B.A. & Dayna Begonia, B.A.
Partners in Development Foundation, Ka Pa’ Alana

Room: **Pacific C**

Content: **S T E M**

Target Audience: **P T K**

See how this NAEYC accredited traveling preschool incorporates Hawaiian culture to serve an at-risk population. Walk away with a take home activity, an island treat, and maybe a free book!

“Using Technology to Explore the Concepts of Change over Time and Living vs. Nonliving with Dual-Language Learners”

Presenters: Betty Zan, Ph.D. & Kimberly Brenneman, Ph.D.
*University of Northern Iowa
Heising-Simons Foundation*

Room: **San Marino**

Content: **S T M**

Target Audience: **P T K K F G S G**

Hear about teachers’ efforts to support Head Start children’s experiences exploring living and non-living things and how these change over time. Develop learning experiences that focus on powerful science ideas.

“Engaging in STEM Conversations with Children”

Presenters: Sandra Silverman & Dave Scahill
*Retired, San Diego Office of Education
SilverArgentum Consultants
The Discovery Source*

Room: **San Diego**

Content: **S T E M**

Target Audience: **P T K K F G S G**

Play with STEM materials children use in your program. Learn an easy 3-step approach to enhance your learning environment through meaningful conversations with children, making STEM come alive.

“The Secret Life of a Snowflake: An Up-Close Look at Nature’s Frozen Art”

Presenter: Kenneth G. Libbrecht, Ph.D.
Caltech Institute of Technology

Room: **Santa Barbara**

Content: **S M**

Target Audience: **P T K K F G S G**

How do snowflakes form? What creates their symmetrical and strikingly beautiful shapes? Is it true that no two are exactly

alike? Kenneth Libbrecht, professor of physics at Caltech, will reveal the many secrets of snowflakes. He will saturate your senses with spectacular photographs of these miniature ice sculptures. He will teach you about the science underlying their intriguing structures. He will enlighten you as to why the lowly snowflake is an excellent case study for investigating the molecular dynamics of crystal growth. By the end of this talk, you will understand why snowflakes look like they do, and how their complex and symmetrical patterns emerge. You may even be able to answer those difficult questions children ask about falling snowflakes.

“STEM Education in the Primary Classroom”

Presenter: Julie MacIntyre

SAE International

Room: **Santa Clara**

Content: **STEM**

Target Audience: **K FG SG**

Come experience the award-winning, A World In Motion program and see how STEM and literature can be incorporated into your current lessons to reach even the youngest learner.

“Seeds to Seedlings: Everyday STEM for infants & Toddlers”

Presenter: Jean Barbre, Ph.D.

Orange County Department of Education

Room: **Del Mar**

Content: **STEM**

Target Audience: **I T**

Infants and toddlers are naturally curious and desire to explore new things. Join us as we investigate new ideas on how infants and toddlers learn about the world through STEM.

“Supporting STEM through Literature”

Presenters: Sara Moore, Ph.D., Johannes Strobel, Ph.D. and William Bintz, Ph.D.

ETA Hand2mind

University of Missouri

Kent State University

Room: **Santa Rosa**

Content: **STEM**

Target Audience: **K FG SG**

Much high-quality & award-winning literature supports STEM instruction for young children. Join us to learn about this literature, along with instructional strategies and connections to hands-on STEM learning experiences.

“Mathematics & Preschoolers: Helping Teachers Incorporate Meaningful Learning into Everyday Activities”

Presenters: Jenn Kinkel & Tom Chiaromonte

Huntington Beach City School District

Fullerton College

Room: **Sacramento**

Content: **M**

Target Audience: **P TK**

Mathematics is a part of everyday life, and children actively construct mathematical knowledge. This workshop investigates how teachers can incorporate inquiry-based learning, viewing children as critical thinkers, teachers as partners.

“Building Bridges to Learning”

Presenter: Jayanti Tambe, M.A.

Early Learning at UCLA

Room: **Pasadena II**

Content: **STEM**

Target Audience: **P TK**

In this workshop on design technology, participants will explore ways to enhance block play in the environments where children can explore the shape, form and function of blocks.

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"I would rather have questions that can't be answered than answers that can't be questioned."

-Richard Feynman

"The important thing is not to stop questioning; curiosity has its own reason for existing."

-Albert Einstein



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20 Fun Things To Do In Pasadena, California

The Gamble House

A California and National Historic Landmark can be found mixed in with other well to do suburban homes on Westmoreland Place in Pasadena. Built in 1908, the Gamble House belonged to the on screen Dr. Emmett Brown in the Back to the Future trilogy. Off screen this three-story architect's dream was included in the top 10 houses list of all time by the Los Angeles Times in 2008 and has a yearly rotating occupancy of architecture students from USC. Drop in on a Tuesday when the rear lawn and terrace are open for Brown Bag lunch carriers or for daily architect based tours.



Jet Propulsion Lab

The city of Pasadena can proudly boast that they host the leading robotic exploration of the solar system in the country. NASA's Jet Propulsion Lab offers numerous public educational events throughout the year including a March event that will share stories of field campaigns and research efforts and an April event that will showcase two new sibling robots. General purpose tours are offered year-round for visitors who would like to learn about the laboratory as a whole. Visit the website for more information about the tours.



Pasadena Playhouse

The 686-seat historic performing arts venue is an influential medium for the American Theatre. The Pasadena Playhouse was the first American theatre to produce all of Shakespearean plays and they showcase at least 300 performances annually. Their College of Theatre Arts cranked out legendary actors including Gene Hackman, Dustin Hoffman and box office heartthrob William Holden. Today, The Whipping Man by Matthew Lopez is onstage until March 1st and Pygmalion and Waterfall debut later this spring and summer.



Arlington Garden

The city's only dedicated public garden features plants that fair extremely well in the Southern California climate. The Garden facilitates inspiration and guidance for anyone looking to start or improve an existing garden with drought tolerant plants. Even if you're not visiting for personal gardening purposes, the three acre lot offers tranquility for any and all visitors. Admission is free and the Garden is open year-round, rain or shine.



Huntington Library

The Huntington Library serves as a dual purpose establishment by showcasing educational and research based collections and 120 acres of landscaped gardens. There is an admission fee to visit, but they do offer "Free Days" for non-member visitors the first Thursday of each month. You'll have to request your ticket in advance online or by phone to avoid a sellout. There are four dining options here for when your feet need a rest including the Rose Garden Tea Room where you'll delicately eat finger sandwiches and chilled salads of The Cafe for a family friendly option with simple, yet satisfying options such as sandwiches, tacos, quesadillas, and a kid approved children's menu.



iPic Theater

This theater creates such a fun, unique movie viewing experience with their recliner sofas, provided blankets & pillows and free popcorn. That's not all though, guests can order a full meal up to 30 minutes prior to the movie showing and have it delivered to their reserved seat. With you meal you'll have the option to accompany it with a glass of wine or cocktail from Salt Lounge. This sounds like a movie night at home, but even better because other people are doing the work for you.



Ice House Comedy Club

Open since 1960, this vintage-esque comedy club has been Pasadena's go to for music and comedy. Renowned comedians have graced this club including Jay Leno, Jerry Seinfeld and the late Robin Williams. Today, there are two showrooms, a courtyard and approximately 7,000 guests each month. Upcoming performers include Harry Basil and Kevin Smith with Jason Mewes. I would try looking at Groupon for the latest and greatest deals for entry into this comedy club.



Eaton Canyon

There's many things to do at Eaton Canyon that at least one aspect is bound to appeal to whomever you might be traveling with. Whether you like to hike, go horseback riding or like watching running water, you can find it here. The trail to Eaton Canyon Falls is a popular and often crowded hike that starts off as a fairly easy walking experience, but progresses in difficulty as you approach the falls. If you're not as into physical activity there's still much opportunity to view wildflowers in the spring and an abundance of birds during the crowning of migration (April-May.)



Le Petit Vendome Wine Tasting

This wine and spirits shop recently moved to a new location between Smitty's Restaurant and Wells Fargo Mortgage. Always go online to confirm the wine tasting schedule, but wine tasting at the Pasadena location usually occurs every Friday and Saturday between 6:30 and 8p.m. Each weekly wine tasting will focus on either a particular region or category of wine. What's really neat are all sampled wines are offered to samplers at or below retail prices.



Old Town Pasadena

The real downtown of Pasadena hosts many activities and establishments for those looking for fun in the City of Roses. Take a walk along Colorado Blvd. in old town to enjoy a myriad of shopping and dining options, plus there's the Farmer's Market every Sunday with free kids' activities. And, of course, every year folks camp out along Colorado the day before the turn of the new year so they can stake out their real estate to watch the annual Rose Parade.



Rose Bowl

Speaking of roses... The Rose Bowl might be most famously known for the annual college football game of the same name, but regular flea markets, concerts and special events draw in the crowds year-round. Also of note, stadium tours are made available for those who are really just interested where visitors can see the original 1922 locker room, the Loge Lounge and all the famous history that has occurred here.



Kidspace Children's Museum

This is the place to visit if your family has little ones in it because really, sometimes kids need an outing that is all about them. There are a ton of hands-on exhibits for our little ones who are used to hearing, "don't touch!" and plenty of outdoor activities and programs. The outdoor Robert & Mary Galvin Physics Forest looks like a fantastic place to let kids use their whole bodies and mind to see just how things work. Check out their website for current programs geared for all age ranges.



626 Night Market

Ok, so Arcadia isn't technically in Pasadena but since it's literally just a stone's throw away we have to mention the 626 Night Market, the original, and largest, Asian themed night market in the United States. With food options ranging from ramen burgers to lobster rolls, Sriracha inspired creations to more traditional fare such as stinky tofu or dragon candy, it's no wonder that 626 is one of the signature food events of the San Gabriel Valley (and all of Los Angeles, really).



Santa Anita Park

I remember a time when all I used to hear about on the radio and television was the Santa Anita Park. The park which is best known for its thoroughbred racing is in season right now until June. You can catch a race and a free tour of the stables weekends during the season at 8:45 and 9:45 a.m. They've got more than just horses though, if you like beer they've got a beer festival coming up early March and the Winner's Circle BBQ Championship at the end of March. You're bound to have a busy spring and summer if you stay current with the events this venue hosts.



Free Concerts at Levitt Pavilion

The Levitt Pavilion Pasadena is a non-profit arts organization which hosts a Music Festival of some 50 free concerts over the course of each and every summer. Performances include past Grammy winners, and a variety of genres, from Latin to Jazz to contemporary alternative and indie acts. There are even food vendors and children's activities set up to entertain the little ones. Just be sure to get there early to stake out a good spot to enjoy the show.



San Gabriel Mission District

If you went to elementary school in California there's a good chance you toured one of the 21 missions that line the state. Although not directly inside Pasadena city limits, this mission is too close not to visit if you'll be in the area. Take a walk through the "city with a mission" and explore what was first rooted over 200 years ago. You'll get a small taste of early California life, eat some good food and most importantly, learn about the Franciscan's fourth established mission.



Norton Simon Museum

One of the most impressive private collections in the world resides at the Norton Simon Museum, just a few blocks west of the heart of Old Town Pasadena, with works ranging from a 2,000 year period that include paintings from the European Renaissance, 20th century European masters, and incredible sculptures from South and Southeast Asia made more than a millennia ago. Standard admission is \$12 but the Museum is free for all visitors the first Friday of every month from 5pm to 8pm.



Pasadena City College Flea Market

If the Rose Bowl Flea Market seems too pricy or too overwhelming, consider this a great alternative. The PCC Flea Market takes place the first Sunday of every month from 8am to 3pm, features tons of great vendors and is FREE to enter. Just as important, parking is just \$2.



Vroman's Bookstore

Pasadena's oldest bookstore, and also one of L.A.'s finest. This is the perfect spot to spend a rainy afternoon perusing, reading, or just hanging out, and they also have plenty of signings, readings, and other community oriented events on their calendar to keep you coming back week in and week out. Two locations for your convenience, one on Colorado Blvd and the other on Foothill.



South Lake Ave

If you've exhausted your capacity for shopping on Colorado Blvd, then take a stroll down Lake Ave. A few miles east of Old Town proper, this 12 block strip along South Lake Ave features shops, markets, restaurants, and retailers. Recommended: Abricott for breakfast, Mediterranean Cafe for lunch, and Euro Pane Bakery (just a block east) for macarons.



Visit Pasadena Chamber of Commerce at www.pasadena-chamber.org for more information.



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- Louis Pasteur



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