

Schedule of Events

All listed events are at the Anaheim Convention Center

Wednesday, October 28

4:00 p.m. – 7:00 p.m. Early Registration

Thursday, October 29

7:30 a.m. – 8:15 a.m. Continental Breakfast in Exhibitor Marketplace (Hall B)

7:30 a.m. – 5:00 p.m. Exhibitor Marketplace (Hall B)

7:30 a.m. – 1:00 p.m. Makerspace (Hall B)

8:15 a.m. – 9:30 a.m. Opening Session and Keynote Speaker (Hall A)

9:30 a.m. – 5:00 p.m. Student/Teacher Share Fair and Project Demonstrations
(2nd Floor Lobby)

9:40 a.m. – 10:55 a.m. Breakout Session I: Presentations

11:05 a.m. – 12:20 p.m. Breakout Session II: Presentations and Round Tables

12:30 p.m. – 1:45 p.m. Luncheon and Keynote Speaker

1:55 p.m. – 3:10 p.m. Breakout Session III: Presentations

3:00 p.m. – 5:00 p.m. Makerspace (Hall B)

3:10 p.m. – 3:30 p.m. Afternoon Break (Exhibitor Marketplace in Hall B)

3:30 p.m. – 4:45 p.m. Breakout Session IV: Presentations

5:15 p.m. – 7:00 p.m. Networking Reception and Makerspace Demonstrations
(Convention Center Grand Plaza)

Friday, October 30

6:45 a.m. Doors open for Continental Breakfast (Hall A)

7:00 a.m. – 7:50 a.m. Keynote Speaker (Hall A)

7:00 a.m. – 12:15 p.m. Exhibitor Marketplace and Makerspace (Hall B)

8:00 a.m. – 9:15 a.m. Breakout Session V: Presentations

9:25 a.m. – 10:40 a.m. Breakout Session VI: Presentations

10:50 a.m. – 12:05 p.m. Breakout Session VII: Presentations

12:15 p.m. – 1:30 p.m. Closing Session: Luncheon, Keynote Speaker,
and Raffle Winners Announced

Sessions at a Glance

- 1. STEM Learning Across Disciplines
- 2. Leadership in STEM
- 3. STEM in Out-of-School/Expanded Learning and Pathways
- 4. STEM and the Arts
- 5. Business, Community, and Postsecondary Partnerships
- 6. Diversity, Girls, and Inclusion in STEM

GRADE SPAN

- PreK-2 (PK-2)
- 3-5 (3-5)
- Middle School (MS)
- High School (HS)
- Postsecondary (P)

TARGETED AUDIENCE

- PreK-12 Educators (E)
- Administrators (A)
- Out-of-School/
Extended Learning (O)
- Community (C)

Thursday, October 29, 2015 • Session I – 9:40 a.m. to 10:55 a.m.

Room	Session Title	Session ID	Strand	Grades	Audience
201A	Girls Love Robots: Inspiring Girls in STEM	5	6	HS	E
201B	STEAM Meet Arts, Media, and Entertainment	502	4	HS	A
201C	STEM Leadership in California Green Ribbon Schools	264	2	3-5	A
201D	How Teachers Create Integrated STEM Pathway Projects and Lessons	56	3	HS	E
202A	Introduction of Geographic Information Systems to STEM	496	1	HS	E
202B	Grades K-2 Project-Based Learning STEAM Units	503	4	PK-2	E
203A	Career Technical Education: Student Leadership Matters	441	2	HS	E
203B	Training Future Cyber Security Professionals	113	3	HS	O
204A	Developing a NGSS Implementation Plan	466	2	MS	E
204C	iPad Tablets Invade Middle School Science Classrooms	6	1	MS	E
205A	It's Never Too Early to Start Coding!	84	1	PK-2	E
205B	Rebooting Computer Science Education with the New Principles Course	418	6	HS	E
206A	STEAM Lab and School Garden in a Dual Immersion Setting	100	1	3-5	E
206B	The Gender Divide and Digital Learning in STEM Fields	399	6	HS	E
207A	Demystifying Everyday Devices: Physics Principles at Work	156	3	HS	O
207B	Fostering a Risk-Taking Culture During a Time of Change	451	6	3-5	A
207C	Integrating Mathematics, Robotics, and Circuitry	314	1	MS	E
207D	The "STEM" Behind Hollywood	30	1	HS	C
208A	STEM: Including Students with Special Needs	8	6	HS	E
208B	STEAMing into the 21st Century!	511	1	MS	E
209A	"LeverGizing" Mathematics in Engineering Contexts	115	1	HS	A
209B	Making a Makerspace?	328	2	MS	A
210A	From Virtual to Visual: Weaving Art into Applied Mathematics	220	4	3-5	E
210B	Community and Student Relations Through STEM	523	5	HS	C
210C	SciTech: Empowering Girls Through After School Science Programs	484	6	3-5	O
210D	Digging into Depth of Knowledge Through Mathematics Tasks	214	1	MS	E
211A	Robotics for Grades K-6 Classrooms	108	1	3-5	E
211B	How Mathematics and Science Can Inspire Teachers and Students in the Preschool Classroom	239	1	PK-2	E
212A	Teaching Mathematics and Science with LEGO Mindstorms	469	1	HS	A
212B	Creating a Culture of Scientific Inquiry Throughout the Program Day	238	1	PK-2	E
213A	Expanding STEM Through K-16 Partnerships: The Hands-On Lab	373	5	MS	E
213B	Marine Debris: It's Everywhere, Even in Schoolyards!	202	3	MS	E
213C	Literacy and Writing in Science	330	1	MS	E
213D	Zero To STEM...Continued	409	2	3-5	E

Sessions at a Glance

Thursday, October 29, 2015 • Session II – 11:05 a.m. to 12:20 p.m.

Room	Session Title	Session ID	Strand	Grades	Audience
201A	Continuous Improvement for STEM in Expanded Learning Programs	124	3	3-5	O
201B	STEM Grant Writing 101	301	2	MS	E
201C	Teachers and Students Measuring the Outer Solar System	413	3	HS	C
201D	Weaving the Environment into Three-Dimensional Learning	228	1	3-5	E
202B	NGSS Notebooks to Support STEM	463	1	HS	E
203A	Cisco and MESA Mentor Program: Matching Students with Industry Professionals	416	5	P	C
203B	STEM and Science Lessons on the Playground	9	3	3-5	O
204A	Implementing a STEM Quality Criteria Rubric to Promote Successful STEM Efforts	34	1	MS	A
204C	Making to Learn: Bringing an Academic Focus to Maker Education	298	1	HS	E
205A	Igniting the Passion for STEM Education	236	3	HS	O
205B	Designing an Information Communication System	32	1	MS	A
206A	Programs and Strategies for Supporting Girls in STEM	316	6	MS	O
206B	Equity and Innovation: Computer Science Pathways for Grades 7-12	14	2	HS	E
207A	Using Partnerships to Grow Your STEM Pathways	415	5	HS	A
207B	Start Improving Your Integrated STEM Lessons	333	1	PK-2	E
207C	Bringing Computer Science to Your K-12 Classroom: Educator Panel	419	1	HS	C
207D	Artful Connections with Mathematics	417	4	3-5	E
208A	Creating Cognitively Demanding Mathematics and Science Tasks	374	1	MS	E
208B	Mathematics and Science Environment Using California's Early Learning Foundations and Curriculum Framework	237	1	PK-2	E
209A	Systems, Students, Opportunities: Bridging the Gaps!	183	6	P	A
209B	Popular Arts in the STEM Classroom	322	4	3-5	E
210A	The Elephant in the Room: Access and Equity in STEM	190	6	HS	E
210B	Creating a 21st-Century Technology Workforce Using Scratch	213	1	MS	E
210C	An Introduction to Differentiating STEM in Grades PreK-2	323	1	PK-2	E
210D	Preparing ALL K-2 Students to Make Sense of Word Problems	122	6	PK-2	E
211A	Integrating Media and Technology into Science Instruction for Young Children	101	1	PK-2	E
211B	Inquiry-Based Laboratory: Transition Your Favorite "Cookbook" Labs	339	1	HS	E
212A	Going from STEM to STEAM	425	4	MS	E
212B	Pit and the Pendulum: English-Language Arts, Mathematics, and Physics Together	120	1	HS	E
213A	Searching for Computer Science: Access and Barriers in U.S. K-12 Education	151	6	MS	A
213B	Building an Ideal Playground: An Engineering Project-Based Learning Unit	241	1	PK-2	E
213C	#MakingMath: How to Facilitate and Integrate Making into Your Curriculum	389	1	HS	E
213D	Educating by Design	491	2	HS	A
204B	Round Table Presentations		All	All	All

■ 1. STEM Learning Across Disciplines

■ 2. Leadership in STEM

■ 3. STEM in Out-of-School/Expanded Learning and Pathways

■ 4. STEM and the Arts

■ 5. Business, Community, and Postsecondary Partnerships

■ 6. Diversity, Girls, and Inclusion in STEM

Sessions at a Glance

Thursday, October 29, 2015 • Session III – 1:55 p.m. to 3:10 p.m.

Room	Session Title	Session ID	Strand	Grades	Audience
201A	Engineering Success for “Thrice Exceptional” Students: STEM and Autism	40	6	HS	A
201B	Educators Working with Industry to Create Alternative STEM Success Pathways	430	3	HS	E
201C	Race, Learning Attitudes, and Achievement: An Inequitable Triad	223	6	HS	C
202A	Extreme Home Makeover, Environmental Edition: Engineering Design Project Using Data	197	1	HS	E
202B	Engaging Education and Industry Partners to Advance STEM Access for Students	285	6	HS	O
203A	EnCorps STEM Teachers: “What You Do with Experience Counts”	13	5	HS	C
203B	Engineering a Sustainable Future for Your Students	257	1	3-5	E
204A	Computer Science Access for Students of Color: Disparities and Opportunities	281	6	HS	E
204B	How to Link Classrooms to Business and Industry	506	5	HS	E
204C	Bring STEM to Your School: STEM Clubs in Action	145	3	HS	E
205A	STEAMing Our Way to Success: What Schoolwide Implementation Looks Like	284	1	3-5	E
205B	Supporting After School Youth with CCSSM	444	3	MS	O
206A	STEM Certificate for Educators	480	1	P	E
206B	Engineering Technology: Project-Based Learning for All Students!	359	1	HS	E
207A	Where to Start? Building and Implementing a STEM Program	380	5	MS	E
207B	Do You See What I See?	175	6	3-5	E
207C	Social Studies, ELA, and STEM - Oh My: Integrating It All!	150	1	3-5	E
207D	Intentional Leadership Through E-Colors	37	2	HS	E
208A	Transition with Ease: NGSS and CCSS	377	1	PK-2	E
208B	Do You See What I See? Making Student Thinking Visible	251	1	HS	E
209A	Creative Arts+STEM Collaborations: Effective Tools to Build a STEAM Program	292	4	MS	A
209B	Mi Familia: Three Mexican Engineering Sisters	133	6	P	C
210A	STEM to Story: Creative Writing and Hands-On STEM	365	4	MS	O
210B	Crime Scene Investigation and Mock Trial: STEM Across the Curriculum	52	1	MS	E
210C	Developing High School Leaders to Support Middle and Elementary School Robotics Programs	271	2	HS	A
210D	Crossing Disciplines with Social Media	274	1	HS	E
211A	How Leading California Women Address the Gender Gap in STEM Majors and Careers	179	6	MS	E
211B	A Window into NGSS Implementation and District Needs	103	2	MS	A
212A	Start Your Engines: Engaging Early Learners with Science Practices	169	1	PK-2	E
212B	A Natural STEM Fit: Global Learning and Observations to Benefit the Environment and NGSS	490	3	HS	E
213A	STEM, NGSS, and Kindergarten	225	1	PK-2	E
213B	Building Sustainable Change in STEM Instruction	286	2	HS	A
213C	Beyond Getting It Right! Fostering Mathematics Understanding in the Classroom	129	1	MS	E
213D	Creating Integrated STEM Projects Across the Core	94	1	HS	E

GRADE SPAN

PreK-2 (PK-2) Middle School (MS) Postsecondary (P)
3-5 (3-5) High School (HS)

TARGETED AUDIENCE

PreK-12 Educators (E) Out-of-School/Extended Learning (O)
Administrators (A) Community (C)

Sessions at a Glance

Thursday, October 29, 2015 • Session IV – 3:30 p.m. to 4:45 p.m.

Room	Session Title	Session ID	Strand	Grades	Audience
201A	Outside-In: Drivers of Highly Effective After School and Summer STEM Learning	310	3	MS	E
201B	Ten STEM Foundations Needed for Implementation	372	2	HS	A
201C	Celebrating Women in Mathematics and Science: A STEM Culture	497	6	P	O
202A	Mathematics Educational Equity Through Family Engagement	79	6	3-5	C
202B	STEM as a 24/7 Role Play Game	489	1	HS	E
203A	Hack Your Classroom: Building an Equitable Lab on a Budget	263	6	HS	E
203B	Adding Art to STEM with Levers, Balances, and Mobiles	12	4	MS	E
204A	Free Online and Mobile Tools for Exploring STEM Careers	194	3	HS	E
204C	Design Challenges to Develop Critical Thinking and Grit	253	1	MS	E
205A	GEMS in STEM: Girls - Engineering - Mathematics - Science	307	6	HS	E
205B	LEGOs: Design Thinking and Engineering for Young Students	149	1	PK-2	E
206A	Findings from the 2015 Power of Discovery: STEM2 After School Learning Initiative	49	3	3-5	O
206B	STEM Is Everywhere!	500	3	MS	O
207A	Tomorrow's Scientists: After School Science Clubs for Middle School Students by Pre-service Teachers	232	3	P	O
207B	Junior Engineering and Technology in the K-2 Classroom	224	1	PK-2	E
207C	Recruiting the Next Generation of STEM Teachers Through YouthTEACH2Learn	265	5	HS	E
207D	KQED Art School: Arts and Media Integration Across STEM Subjects	199	4	HS	E
208A	Developing STEM in Middle Grades: Examples from California and Beyond	487	1	MS	E
208B	Creating Interdisciplinary NGSS-Focused Curriculum	217	1	PK-2	E
209A	Integrating Engineering Design, Computational Thinking, and 21st-Century Skills	153	6	HS	A
209B	Igniting the Dream: Supports and Strategies to Diversify STEM Fields	495	6	MS	E
210A	High-Altitude Balloon Near Space Experiments	198	1	HS	E
210B	Planning Cross-Curricular STEM-Based Units	139	1	MS	E
210C	Middle School STEM	177	2	MS	E
210D	Exploring NGSS and Engineering Practices Using NextGen TARSC	422	1	MS	E
211A	STEM Program: Read It! Build It! 2.0	227	1	3-5	E
211B	Real, Relevant, and Rigorous STEAM Integration	180	4	3-5	E
212A	Capturing the Essence of the NGSS in the Physics Classroom	248	1	HS	E
212B	STEM Leadership at the County and District Level	254	2	MS	A
213A	Linking the Classroom to the Community	158	5	MS	C
213B	Building a Standards-Based Unit with NGSS and CCSS	215	1	PK-2	E
213C	Generating a Spark for Learning with STEM	88	1	3-5	E
213D	Needle in the Haystack: Picking High-Quality STEM Curriculum	335	2	3-5	A
204B	Round Table Presentations		All	All	All

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Sessions at a Glance

Friday, October 30, 2015 • Session V – 8:00 a.m. to 9:15 a.m.

Room	Session Title	Session ID	Strand	Grades	Audience
201A	Awareness and Discovery: Year One of a STEM Elementary School	288	1	3-5	A
201B	Lessons Learned: Professional Development for Teachers on Integrated Computing and STEM Education	452	2	MS	A
201C	STEM Through Comics	432	4	MS	E
201D	Using Project-Based Learning to Focus STEAM Learning	209	1	MS	E
202A	Not-So-Flashy Tech: Integrating Technology with STEM Professional Development	313	1	MS	E
202B	Designing a Career Pathway Trust with Partners	460	5	P	P
203A	STEM Lab: A Place to Discover, Imagine, and Innovate	59	3	3-5	O
203B	Developing STEM Educators Through Innovative Teacher Preparation	219	2	P	P
204A	Using Code to Create Art and Animations to Engage All Students	82	4	MS	E
204C	The New California Science Framework	168	2	All	E
205A	Teaching from Within Companies	440	5	HS	C
205B	Making STEM Connections Come Alive!	93	1	MS	E
206A	Project-Based Learning: Pre-Kindergarten to Grade 2	3	1	PK-2	E
206B	Elementary Science Instruction in the Era of NGSS	231	2	3-5	A
207A	Using Project-Based Learning: Culturally Responsive Literature and the Engineering Design Process	343	6	MS	E
207B	Go Probe: Teaching With Sensors and Apps	123	1	MS	E
207C	Femineers: A Model for Attracting and Retaining Girls in STEM	200	6	HS	E
207D	Digital Storytelling for STEM Classes!	143	4	HS	E
208A	Girls Can Too! STEM Success for Young Women	488	6	MS	C
208B	Science Day Camp: Creating Authentic Connections Between Families and Schools	208	3	HS	E
209A	Creating and Sustaining 21st-Century Classrooms: Pedagogy, Assessment, and Design	77	2	3-5	A
209B	Programming, Robotics, and Three Dimensions in a Continuation High School	437	1	HS	E
210A	Speedometry: Teaching Inquiry Science Through Play	233	1	3-5	E
210B	ocMaker Challenge: Using "Making" to Deliver High-End STEM Technologies	41	1	HS	E
210C	Piloting STEM Enrichment for Foster Youth	376	6	3-5	O
210D	Sustainability Projects to Develop STEM Skills	97	1	HS	E
211A	STEM in Pre-Kindergarten, Transitional Kindergarten, and Kindergarten	378	1	PK-2	E
211B	Developing a Three-Dimensional NGSS High School Science Unit	400	1	HS	E
212A	Developing STEM Modules for Your Classroom	402	1	3-5	E
212B	STEAM and Engineering: Creating Creative Minds	159	4	3-5	E
213A	Grant Proposal Writing for STEM Teachers	401	2	MS	E
213B	Project Prototype: Further Lessons Integrating Engineering in the Science Classroom	424	1	MS	E
213C	Making STEM Matter: Interactivity of the Digital and Physical World	138	6	MS	E
213D	Noches de Ciencias: Pathway to Engaging Parents and Empowering Students	397	3	HS	O

GRADE SPAN

PreK-2 (PK-2) Middle School (MS) Postsecondary (P)
3-5 (3-5) High School (HS)

TARGETED AUDIENCE

PreK-12 Educators (E) Out-of-School/Extended Learning (O)
Administrators (A) Community (C)

Sessions at a Glance

Friday, October 30, 2015 • Session VI – 9:25 a.m. to 10:40 a.m.

Room	Session Title	Session ID	Strand	Grades	Audience
201A	Inspiring Girls to Code with #girlscan	315	6	HS	E
201B	Intersection Between STEM and the Built Environment	423	1	3-5	A
201C	Teaching Integrated Mathematics 1 with Computing and Robotics	468	1	HS	E
201D	Re-Engineering Instruction to Highlight STEM Throughout the Day	547	1	3-5	E
202A	Scientists and Engineers: Preparing and Placing STEM Professionals in Classrooms	433	5	3-5	C
202B	Handing Over the Reins: STEM Students Designing New Community Futures	336	5	MS	E
203A	Shifting the Lessons: Turning One Dimension into Three Dimensions	188	1	MS	E
203B	Leadership in Middle School Mathematics	367	2	MS	E
204A	STEM Outreach to Girls: Ensuring Equity in Schools	501	6	MS	E
204C	Designing Professional Development to Make Mathematics Accessible to All Students	442	2	MS	E
205A	Science and Environmental Engineering for Secondary (SEES) Teachers	515	5	HS	C
205B	Contextualized Chemistry: Bringing Career Relevance to Your Classroom	210	3	HS	E
206A	Exploring Two Paths to Gender Equity in STEM Extracurricular Activities	114	6	MS	E
206B	Strengthening STEM in Local Control and Accountability Plans	268	1	HS	E
207A	It's Elementary: STEM That Is!	346	1	3-5	E
207B	Scaffolding Learning to Build Potential in All Kids: Exploring Computer Science	244	6	HS	E
207C	Partnerships that Transform: STEM Learning Is Everywhere and Everyone	325	5	3-5	E
207D	Implementing the NGSS One Layer at a Time	211	2	MS	E
208A	Weather Watchers Using Models, Maps, and Data	11	1	MS	E
208B	All-Around STEM: Young Engineer	83	1	PK-2	E
209A	Let the Tablet Tell a Digital Science Story	331	1	MS	E
209B	Using Response Systems for Formative Assessments in Mathematics Class	131	1	MS	E
210A	Learning Design While Meeting Local Community Needs	475	1	HS	E
210B	Fremont Academy of Design and Engineering: Lessons Learned	435	3	HS	E
210C	Game Design and STEAM Play	472	4	HS	E
210D	Gizmos: Using Online Simulations to Improve Conceptual Understanding in Science	186	1	MS	E
211A	Ardusat Space Kits in the Classroom	127	1	HS	E
211B	NGSS Engineering Design in the Middle School Physical Science Classroom	184	1	MS	E
212A	STEM and the Arts: It Is an Interdisciplinary World	319	4	3-5	E
212B	Simulated Water Management Model: A Model of Critical Thinking	520	1	HS	E
213A	Why Girls Love and Leave STEM	185	6	MS	O
213B	Will and the Waste Monster	439	1	3-5	E
213C	Let's Talk STEAM in the Classroom	353	4	3-5	E
213D	Making More Out of Mathematics Activities	358	3	3-5	O
204B	Round Table Presentations		All	All	All

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Sessions at a Glance

Friday, October 30, 2015 • Session VII – 10:50 a.m. to 12:05 p.m.

Room	Session Title	Session ID	Strand	Grades	Audience
201A	An Innovative Approach to Recruiting and Retaining Women in Engineering	147	6	P	P
201B	Preparing Low-Income and Minorities for STEM Careers	507	6	HS	O
201C	Community Collaborations and Developing STEM Teachers: Lessons Learned	364	5	P	P
201D	Creating Truly Integrated NGSS and CCSS Units for Grades K-5	250	1	3-5	E
202A	Turning Toys into Tools	53	1	MS	E
202B	Designing a Freshmen Seminar Program to Improve Recruitment and Retention of Female Engineering Students	242	6	P	P
203A	Full STEAM Ahead!	144	2	MS	A
203B	The “T” in STEM	486	2	3-5	C
204A	Trash-to-Fash: Recycled Fashion Show	407	4	MS	E
204B	Maker Education From Kindergarten to Career: What’s Next for the Maker Movement	549	5	All	All
204C	Supporting Students’ Argumentation Writing in Science	235	1	HS	E
205A	Saturday Engineering Buddies	305	5	MS	E
205B	iPad-ography: Using iPads and Devices for More than Pictures	485	4	3-5	E
206A	Improving Representation in STEM Through Novel Assessment and Curricular Interventions	467	6	HS	E
206B	Arts, STEM, and Teacher Preparation	387	4	P	E
207A	NextGen ASET: Tools to Critically Examine NGSS in K-12 Classrooms	420	1	MS	E
207B	Somis STEAM Family Nights	449	6	3-5	A
207C	Latinas in STEM: Showcasing Talent	247	6	MS	C
207D	Digging Deeper into the NGSS Crosscutting Concepts	87	1	3-5	E
208A	Smart Gardens Supporting STEM Learning	390	1	3-5	E
208B	Integrating the NGSS and STEM in the Middle School Science Classroom	294	1	MS	E
209A	Death Finds the Mesozoic: Incorporate NGSS Science and Engineering Practices into Physical and Earth Science	282	1	HS	E
209B	Badges? Maybe We Need Some Stinking Badges!	42	2	HS	A
210A	Graphical Analysis: At the Intersection of Mathematics and Science	393	1	MS	E
210B	California Blueprint for Environmental Literacy: Fundamental to 21st-Century STEM	548	2	All	E
210C	Organizing an Engineering Boot Camp	395	3	MS	E
210D	STEAM All Aboard!	240	4	3-5	E
211A	Integrating Genetics and Statistics to Address NGSS and CCSSM	428	1	MS	E
211B	Project-Based Experimental Design for the Classroom	277	3	HS	E
212B	The Los Angeles River: Design Thinking + Civic Participation = Change	450	4	3-5	E
213A	Engineering Practices in an Elementary Classroom	132	1	3-5	E
213B	Teacher Tools: Assessing Student Understanding in the NGSS Classroom	178	1	MS	E
213C	Urban EcoLab: Environmental Science for the Modern City	356	1	HS	C
213D	Grab Your LEGOs! It’s Robotics Time!	384	3	MS	E

GRADE SPAN

PreK-2 (PK-2) Middle School (MS) Postsecondary (P)
3-5 (3-5) High School (HS)

TARGETED AUDIENCE

PreK-12 Educators (E) Out-of-School/Extended Learning (O)
Administrators (A) Community (C)



Maker Education from Kindergarten to Career: What's Next for the Maker Movement

Date: Friday, October 30

Time: 10:55 a.m. – 12:05 p.m. (Session VII)

Location: Room 204B

Human Energy*

Leaders from every level of the education to career pathway will discuss how policymakers, businesses, administrators, and educators can influence what is next in the maker movement, and how we can collaborate to inspire the next generation of innovators, entrepreneurs, and critical thinkers.

Moderator: Blair Blackwell, Manager, Education and Corporate Programs, Chevron

Panelists:

- *Trey Lathe, Ph.D., Executive Director, MakerEd*
- *Ann Houtman, Dean, School of Natural Sciences, Mathematics and Engineering, California State University, Bakersfield*
- *Phil Gonsalves, Director of Science and Math Curriculum and Instruction, West Contra Costa Unified School District*
- *Ron Way, Dean Emeritus, Industry and Technology Division, El Camino College*

Reactor: Kathleen M. Knutzen, Ph.D., Dean, School of Social Sciences and Education, California State University, Bakersfield

Additional Special Session Hosted By Chevron

Inspiring Interest in STEM via Informal Education: the San Francisco 49ers and Chevron Change the Game

Date: Thursday, October 29

Time: 1:55 p.m. – 3:10 p.m. (Session III)

Location: Chevron Human Energy Lounge

The 49ers are using the game of football and Levi's Stadium—the most technologically advanced sports venue in the world—as a platform to inspire children grades K-8 to engage with and develop an interest in STEM. With the help of Chevron, the 49ers' programs reached more than 31,000 participants with Common Core- and NGSS-aligned lessons and tour experiences in the 2014-2015 school year and will extend that reach to more than 60,000 this year. Join Museum Director Jesse Lovejoy for a casual conversation on how to use kids' fundamental interest in the things they love and demonstrate that STEM is real, it's fun, and it's everywhere. This session will be a roadmap to how the 49ers are doing that, and how every teacher can also do so.

Jesse Lovejoy, M.A., Museum and Center Director, The San Francisco 49ers

Chevron Involvement in Other Panels

Programs and Strategies for Supporting Girls in STEM

Date: Thursday, October 29 • **Time:** 11:05 a.m. – 12:20 p.m. (Session II) • **Location:** Room #205A

Moderator: Luz Rivas, Founder and Executive Director, DIY Girls

Chevron Role: Panelist - Andrea Bailey, Community Engagement Manager, Chevron

Outside-In: Drivers of Highly Effective After School and Summer STEM Learning

Date: Thursday, October 29 • **Time:** 3:30 a.m. – 4:45 p.m. (Session IV) • **Location:** Room 201A

Moderator: Joan Bissell, Ed.D., Director, Teacher Education and Public School Programs, California State University

Chevron Role: Reactor - Blair Blackwell, Manager, Education and Corporate Programs, Chevron

Partnerships that Transform: STEM Learning Is Everywhere and Everyone

Date: Friday, October 30 • **Time:** 9:25 a.m. – 10:40 a.m. (Session VI) • **Location:** Room #207C

Moderator: Joan Bissell, Ed.D., Director, Teacher Education and Public School Programs, California State University

Chevron Role: Reactor - Blair Blackwell, Manager, Education and Corporate Programs, Chevron

INSPIRE TODAY'S **STUDENTS** TO BE TOMORROW'S **ENGINEERS.**



WE AGREE.

Today's students go on to become tomorrow's employees – including ours. At Chevron, we support science, technology, engineering and math education to help students develop real-world problem-solving and critical-thinking skills. We're preparing them for the opportunities ahead. It's good for the future of our community. And our company.

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Human Energy®

Makerspace Schedule and Locations

Day 1: Thursday, October 29

7:00 a.m. – 1:00 p.m. & 3:00 p.m. - 5:00p.m.: Makerspace in Exhibit Hall

Makerspace Quick-talk and Hands-on Demonstration Schedule

- 7:30 – 7:40 a.m. Quick-talk #1: Advice for Creating a Makerspace
(Stephanie Chang & Jakki Spicer, MakerEd)
- 7:45 – 7:55 a.m. Quick-talk #2: How to Be a STEAMY K-8 Admin
(Melissa Becker & Gina Silveira, Maker Certified Instructors)
- 8:00 – 8:10 a.m. Quick-talk #3: STEAM Superheroes
(Kristin Farr, KQED)
- 3:15 – 3:30 p.m. Hands-on Demonstration #1: Beyond the Hour of Code:
Programming in 6-12th Grades
(Casey Shea, Sacramento County Office of Education
and Maker Certified Instructor)
- 4:45 – 4:55 p.m. Quick-talk #4: Define, Design and Share:
The KQED STEM Media Challenge
(Andrea Aust, KQED)

Making at the Networking Reception (Grand Plaza)

- 5:15 – 6:30 p.m. Hands-on Demonstration #2: Bright Lights, Big STEM Circuitry
(Julia Marrero & Kaki McLachlan, Maker Certified Instructors)
- 5:15 – 6:30 p.m. Hands-on Demonstration #3: Artful Arguments: Supporting &
Questioning Conclusions on Social Media
(Annelise Wunderlich, KQED)

Day 2: Friday, October 30

7:00 a.m. – 12:15 p.m.: Makerspace in Exhibit Hall

Makerspace Quick-talk Schedule

- 7:15 – 7:30 a.m. Quick-talk #5: How to Assess Making
(Stephanie Chang & Jakki Spicer, MakerEd)
- 7:35 – 7:50 a.m. Quick-talk #6: Building Buy-in: Making Maker Educators
out of Colleagues and Parents
(Jessica Parker & Gina Silveira, Maker Certified Instructors)

Ignite your passion for tinkering, creating, and making in our

MAKERSPACE

JUST BRING YOUR CURIOSITY!

Stop by the
Exhibit Hall

MAKERSPACE
to make something
totally cool to take home
working with Certified
Maker Educators!

A MAKER IS...

- ...a tinkerer
- ...an experimenter
- ...an inventor
- ...a risk taker
- ...a problem solver
- ...a creator
- ...an artist
- ...a scientist
- ...an active learner
- ...an engineer
- ...a designer




LASER
CUTTING



CIRCUIT
BUILDING



3-D
PRINTING



PROGRAMMING



LOW-TECH
MAKING



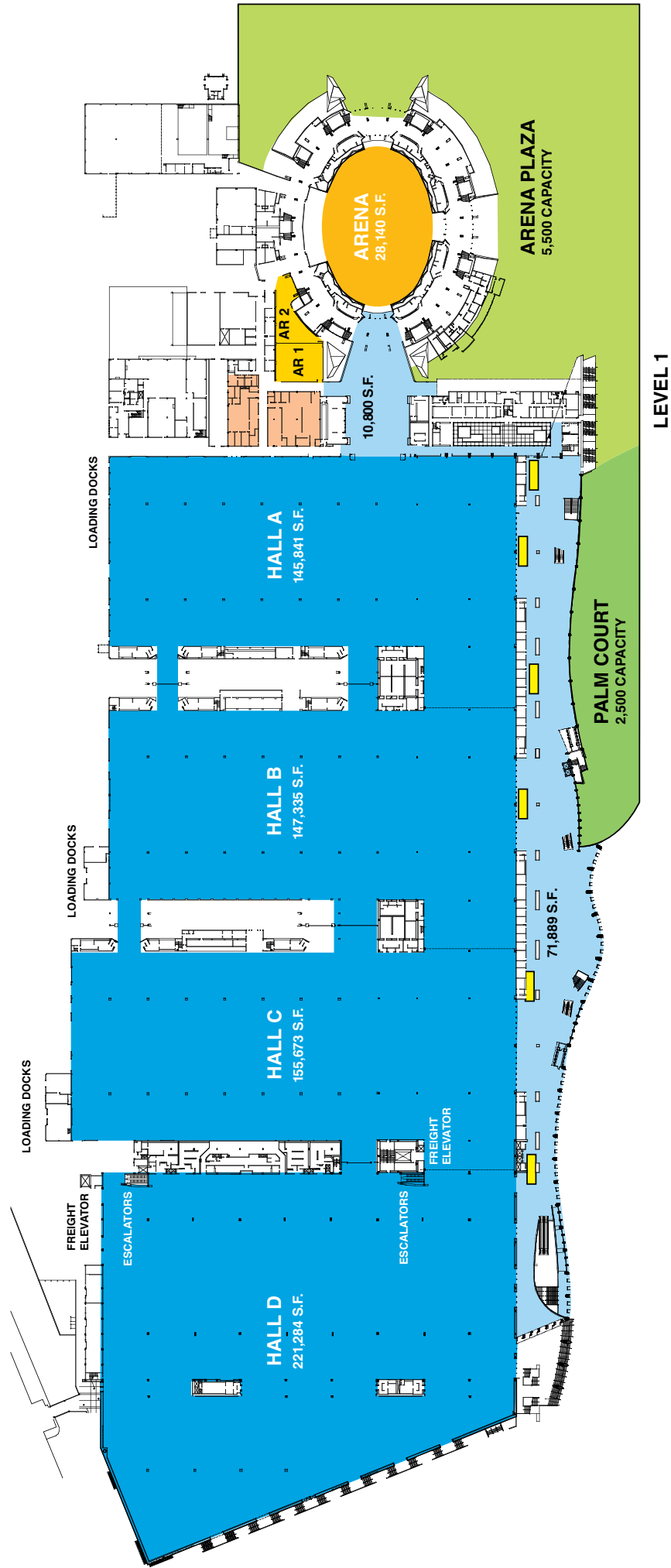
DESIGNING

 **MAKER
EDUCATOR
CERTIFICATE**

Learn more about Sonoma State University's
Maker Educator Certificate Program:
www.thestartupclassroom.org/maker-course

Thank you to Autodesk and KQED for generous support of the Maker Educator Certificate Program

ANAHEIM CONVENTION CENTER – First Level



ANAHEIM CONVENTION CENTER – Second Level

