Invitation to 32nd Annual 2017

CENTRAL COAST STEM EXPO

Science • Technology • Engineering • Mathematics

May 19 & 20
Friday Evening 5 - 8 PM
Saturday Morning 8 – 12 Noon

Lompoc High School

LUSD 2017 STEAM Festival

Flyer 1 (left)

Invitation to 32nd Annual 2017

CENTRAL COAST
STeM EXPO
Science · Technology · Engineering · Mathematics

A Premier Science, Technology, Engineering and Mathematics Competition!

What: Scientific Inquiry and Engineering Demonstration Competition
Grades: 3rd - High School Senior

When: Friday, May 19, 5 - 8 PM & Saturday, May 20, 8 AM - 12 Noon

Where: Lompoc High School Gymnasium, 515 W College Avenue

Teachers! Why your students should participate in this engaging STEM competition:

- Full service event provided from participant entry to awards reception
- Reinforces Common Core & Next Generation Science Standards
- Develops students 21st Century Partnership Learning & Innovation Skills
- Entrants judged against their own peer group
- Volunteer judges are provided from Vandenberg AFB
- Over $700 in plaque and cash awarded to top performers
- $500 Scholarship provided to overall top project at Expo!
- Coincident with Lompoc Unified School District STEAM Festival
- FIRST Robotics and Crime Scene Investigation demonstrations
- Judges scores available upon request to assist teachers in project grading

See Registration information: www.CCSTEMExpo.org   Concessions available on site

Central Coast STEM Expo is sponsored by

AIAA — The World's Forum for Aerospace Leadership

ENDEAVOUR CENTER
Providing student services and educator resources
www.endeavourinstitute.org

AIR FORCE STEM

Flyer 2 (right)

LUSD 2017
STEAM Festival

Host a booth for a two day festival of engaging Science, Technology, Engineering, Art and Math (STEAM)

What: Sign-up to host a booth with a hands-on STEAM activity targeting elementary, middle or high school students, or host a display booth that promotes STEAM + your club, classroom, school, company or business.

When: Friday, May 19th, 5-8 PM, and Saturday, May 20th, 9-12 noon
Choose one or both days to host.

Where: Lompoc High School cafeteria and campus

How: Register online at www.CCSTEMExpo.org, click on link for *LUSD 2017 STEAM Festival* then select "Register."

Questions: Contact Paul Coski at coski.paul@lusd.org

Concessions will be available on site.   Please register by April 29 . . . Thank You!

Some Former Booth Hosts:

Cal Poly, Mechanical Engineering	LHS STaRS Academy	Raytheon Vision Systems
UCSB Marine Science Institute	SpaceX	Allen Hancock College
Ventura Educational Systems	United Launch Alliance	La Purisma School
Lompoc Family YMCA	Imerys Lompoc Plant	Vandenberg Middle School
4H Youth Development Program SB	Tetra Tech	Miguelito STEM Club
CHS Aquarium	NatureTrack	La Honda STEAM Academy
	Orcutt Academy Spartatroniks	Los Berros Visual & Performing Arts Academy

Lompoc Unified School District   LUSD STEAM Team ™

LUSD 2015

STE AM Festival

Science
Technology
Engineering
Art
Math

Lompoc High School Campus Map

NORTH

Huyck Stadium

College Avenue

North "O" Street

Baseball field

34 SpaceX Model Rockets

35 Paper Air Rockets

36 Action Figure Zip Line Races

37 CHS ROVs in Pool

33 Trebuchets

Alternate Egg Drop

STEM Expo Science Fair

41 STEAM Festival

32 Water Balloon Cannon

Elephant Toothpaste

39 Magic Mud; Oobleck

43 43

38 Petting Zoo

42 Surf Connection Skate board wheels & Wetsuit dev.

40 Rubber band Helicopters

41 Egg Drop

INFO TABLE
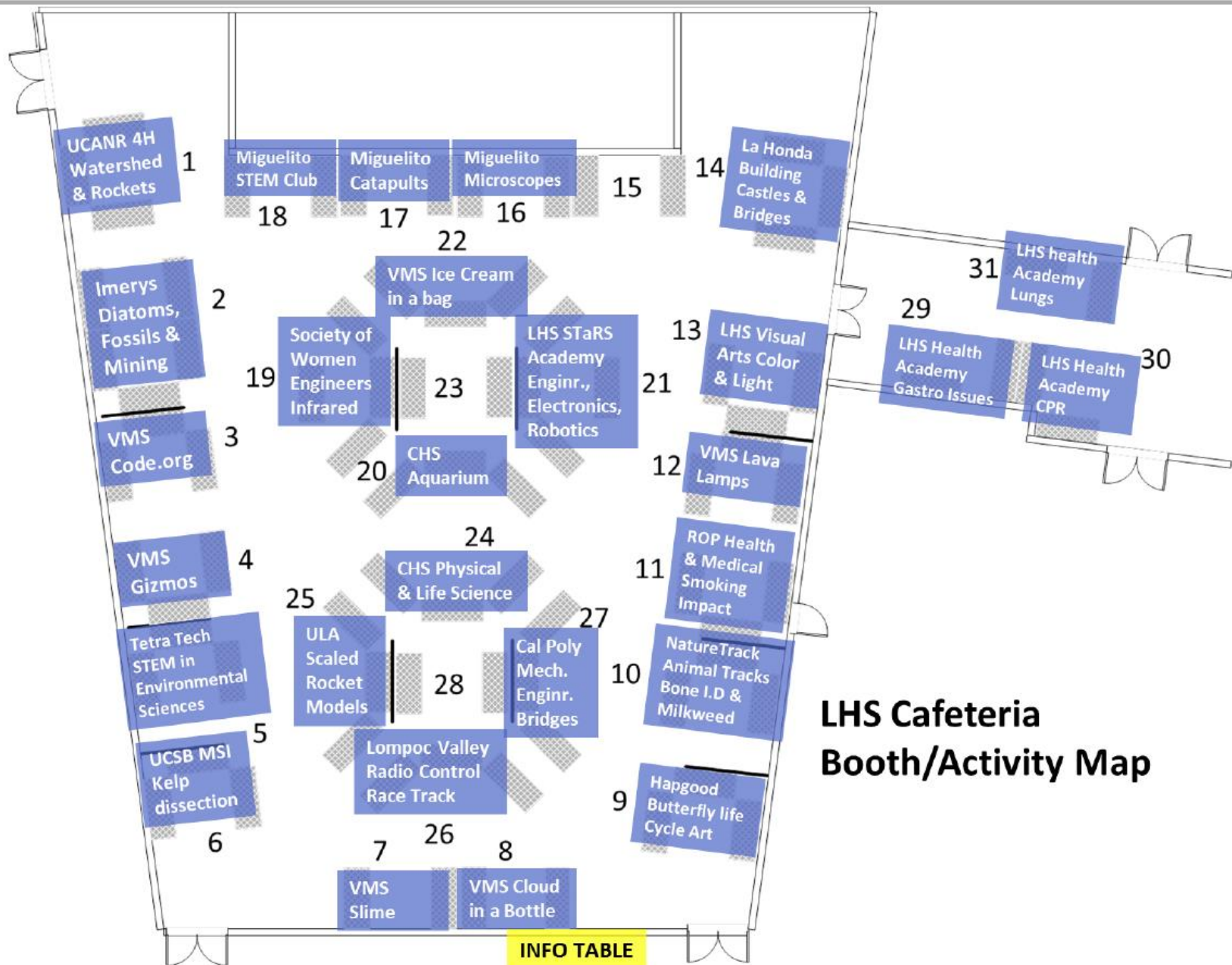
LHS Cafeteria Booth/Activity Map

FORMER BOOTH HOSTS

Colleges & Universities:
Cal Poly, Mechanical Engineering
UCSB Marine Science Institute
Allen Hancock College

Companies:
SpaceX
United Launch Alliance
Raytheon Vision Systems
Imerys Lompoc Plant
Tetra Tech

Clubs:
4H Youth Development Program Santa Barbara
Lompoc Family YMCA
Lompoc Valley 4H
Lompoc Fire Department

Businesses:
Sky Dive Santa Barbara
The Surf Connection
Fast Lap RC Hobbies

Educational Outreach:
Ventura Educational Systems
NatureTrack
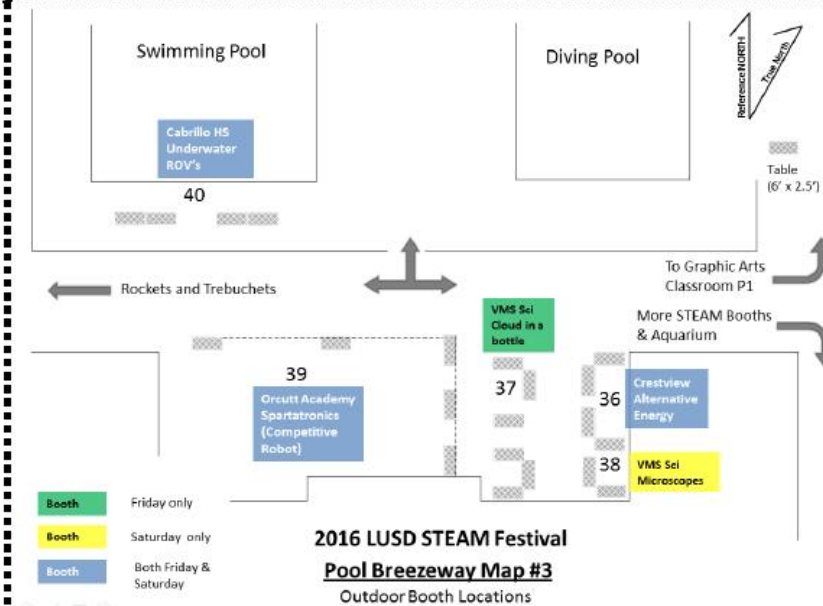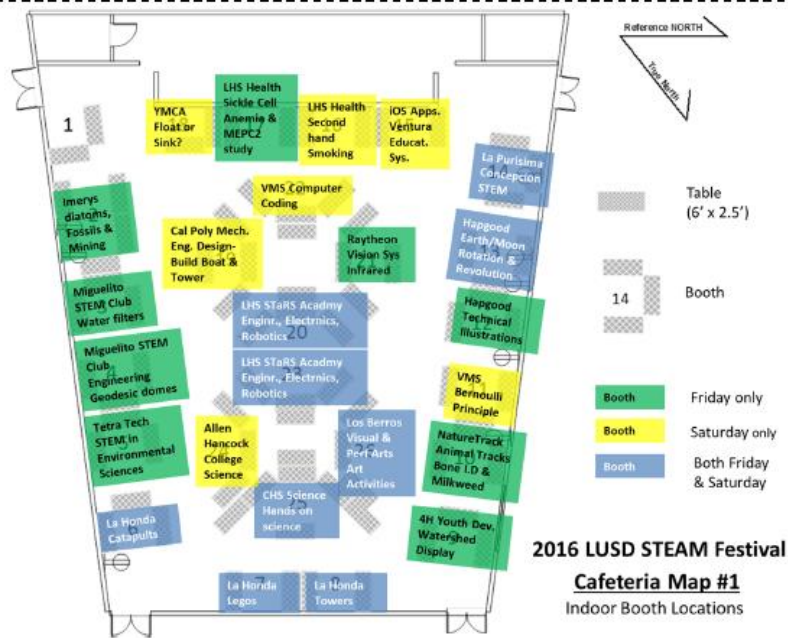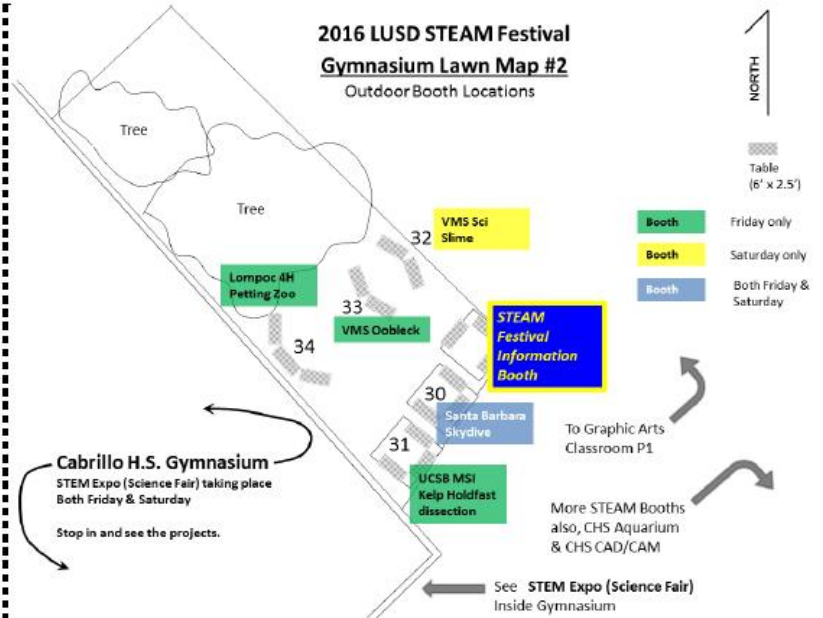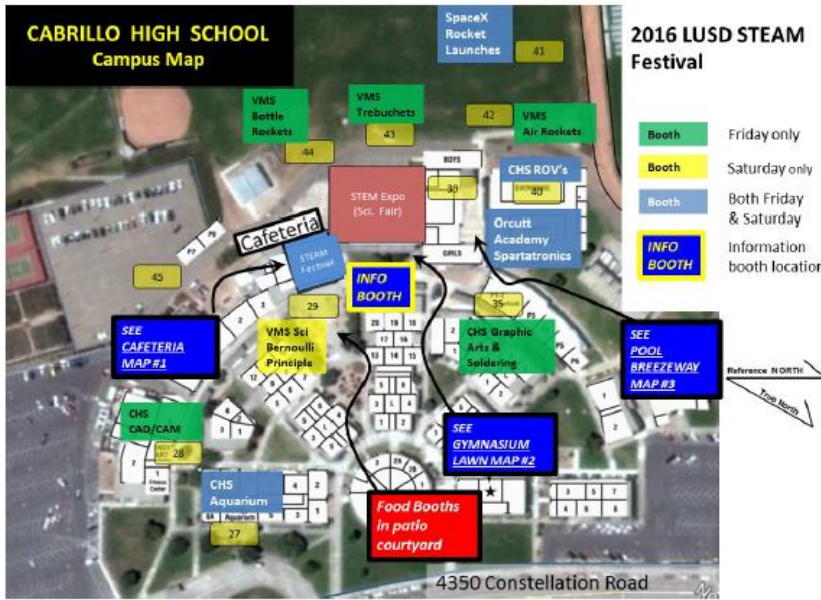
Schools, Departments & Individual Classrooms:
Orcutt Academy Spartatroniks
Miguelito STEM Club
La Honda Elementary
Los Berros Visual & Performing Arts Academy
La Purisima Concepción Catholic School
Hapgood Elementary
VMS Science
LHS STaRS Academy
LHS Visual Arts
LHS Health & Wellness Careers Academy
CHS Aquarium
CHS Physics & Life Science
CHS Graphic Arts & CAD/CAM
CHS ROVs

2016 LUSD STEAM Festival — Campus and booth maps

CABRILLO HIGH SCHOOL Campus Map

2016 LUSD STEAM Festival

- Booth — Friday only (green)
- Booth — Saturday only (yellow)
- Booth — Both Friday & Saturday (blue)
- INFO BOOTH — Information booth location

4350 Constellation Road

Booth labels: SpaceX Rocket Launches 41; VMS Bottle Rockets 44; VMS Trebuchets 43; VMS Air Rockets 42; CHS ROV's 40; STEM Expo (Sci. Fair); Orcutt Academy Spartatronics; STEAM Festival; INFO BOOTH; SEE CAFETERIA MAP #1; VMS Sci Bernoulli Principle 29; CHS Graphic Arts & Soldering 35; SEE POOL BREEZEWAY MAP #3; CHS CAD/CAM 28; SEE GYMNASIUM LAWN MAP #2; CHS Aquarium 27; Food Booths in patio courtyard; Cafeteria; 45; Reference NORTH; True North

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2016 LUSD STEAM Festival — Gymnasium Lawn Map #2
Outdoor Booth Locations

Tree; Tree; Lompoc 4H Petting Zoo; VMS Sci Slime 32; VMS Oobleck 33; 34; STEAM Festival Information Booth; 30; Santa Barbara Skydive; 31; UCSB MSI Kelp Holdfast dissection;

Cabrillo H.S. Gymnasium — STEM Expo (Science Fair) taking place Both Friday & Saturday. Stop in and see the projects.

To Graphic Arts Classroom P1. More STEAM Booths also, CHS Aquarium & CHS CAD/CAM. See STEM Expo (Science Fair) Inside Gymnasium.

Table (6' x 2.5'); Booth — Friday only; Booth — Saturday only; Booth — Both Friday & Saturday; NORTH

2016 LUSD STEAM Festival — Cafeteria Map #1
Indoor Booth Locations

Booth labels: 1; YMCA Float or Sink?; LHS Health Sickle Cell Anemia & MEPC2 study; LHS Health Second hand Smoking; iOS Apps. Ventura Educat. Sys.; La Purisima Concepcion STEM; Imerys diatoms, Fossils & Mining; VMS Computer Coding; Cal Poly Mech. Eng. Design-Build Boat & Tower; Raytheon Vision Sys Infrared; Hapgood Earth/Moon Rotation & Revolution; Miguelito STEM Club Water filters; LHS STaRS Acadmy Enginr., Electrics, Robotics 20; Hapgood Technical Illustrations; Miguelito STEM Club Engineering Geodesic domes; LHS STaRS Acadmy Enginr., Electrics, Robotics; VMS Bernoulli Principle; Tetra Tech STEM in Environmental Sciences; Allen Hancock College Science; Los Berros Visual & Perf-Arts Art Activities; NatureTrack Animal Tracks Bone I.D & Milkweed; La Honda Catapults; CHS Science Hands on science; 4H Youth Dev. Watershed Display; La Honda Legos; La Honda Towers; Reference NORTH; True North

Table (6' x 2.5'); 14 Booth; Booth — Friday only; Booth — Saturday only; Booth — Both Friday & Saturday

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2016 LUSD STEAM Festival — Pool Breezeway Map #3
Outdoor Booth Locations

Swimming Pool; Diving Pool; Cabrillo HS Underwater ROV's 40; Rockets and Trebuchets; VMS Sci Cloud in a bottle; Orcutt Academy Spartatronics (Competitive Robot) 39; 37; Crestview Alternative Energy 36; VMS Sci Microscopes 38; To Graphic Arts Classroom P1; More STEAM Booths & Aquarium; Table (6' x 2.5'); Reference NORTH; True North

Booth — Friday only; Booth — Saturday only; Booth — Both Friday & Saturday

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LUSD 2016
STE▲AM Festival
Science
Technology
Engineering
Art
Math

Group 1: Computer Science	o Computer Coding (Booth 15)
	o iOS App Development (Booth 22)
Group 2: Environmental Science	o Milkweed and Bee Feed Seed Packets (Booth 10)
	o Water Shed Model (Booth 9)
Group 3: Technology	o Etching, Laser Cutter and 3D Printers Demos (Booth 28)
	o Soldering Practice & Robot Cars (Booth 35)
	o Technical Illustrations (Booth 12)
	o Maneuver Underwater ROV Through a Course (Booth 40)
	o Demo of Capabilities of Spartatroniks Robot (Booth 39)
	o Space X- Estes Rocket Launches (Booth 41)
	o Run RC cars Through Course and Fly Drones (Booth 45)
Group 4: Life Science	o Diatomaceous Earth (Booth 2)
	o Interactive Marine Aquaria- with UCSB (Booth 31)
	o Marine Life & Touch Tanks- with Cabrillo High (Booth 27)
	o Microscope Demonstrations (Booth 2)

|	
Group 5: **Physical** **Science**	o Trebuchet (Booth 43) o Infrared Camera Demonstration (Booth 21) o Making Oobleck (Booth 33) o Cloud in a Bottle (Booth 37) o Air Rockets (Booth 42) o Bottle Rockets (Booth 44) o Earth/ Moon Rotation and Revolution (Booth 13) o Display of Sky Dive Santa Barbara Videos & Parachute Target Contest (Booth 30) o Bernoulli's Principle (Booths 11 & 29) o Making Slime (Booth 32) o Float or Sink (Booth 18)
Group 6: **Art**	o Art Activities- Los Berros (Booth 26)

Group 7: **Engineering**	o Water Filters (Booth 3) o Magic Nuudles (Booth 4) o Projector w/ Pictures and Engineering Activities (Booth 6) o LEGO Robots, iPad apps, Old Computer Reverse Engineering and More! (Booth 14) o Engineering & Manufacturing Robotics (Booth 14) o STEM Hands-On with Cabrillo High (Booth25) o Engineering Design Process-with Cal Poly (Booth 19) o STEM Hands-On with Allen Hancock (Booth 24)

Participating Schools for the Last 2 Years
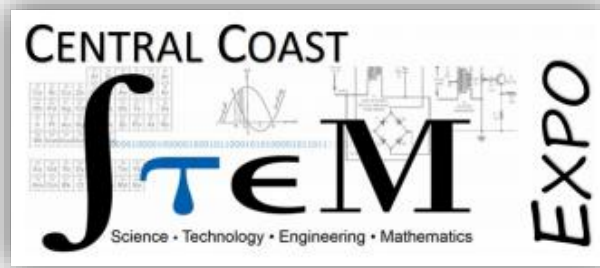
Central Coast STEM Expo	LUSD STEAM Festival
Buena Vista	Buena Vista
Clarence Ruth	Clarence Ruth
Crestview	Crestview
Fillmore	Fillmore
Hapgood	Hapgood
La Canada	La Canada
La Honda	La Honda
Los Berros	Los Berros
Miguelito	Miguelito
Lompoc Valley MS	Lompoc Valley MS
Vandenberg MS	Vandenberg MS
Cabrillo HS	Cabrillo HS
Lompoc HS	Lompoc HS
Maple HS	Maple HS
Mission Valley	Mission Valley

PURPOSE OF THIS PITCH IS TO ENCOURAGE YOUR SCHOOL TO BE REPRESENTED BY HOSTING A BOOTH……..
WHO CAN HOST?

- Individual and Teacher teams

- Student teams (of approximately 2 to 6)

- Clubs

- Local businesses (e.g., Surf Connection, Hobby Shops, etc.).

- Companies (e.g., Raytheon, SpaceX, etc.)

- Colleges and Universities (e.g. UCSB, Cal Poly, AHC)

- Any group or entity that exercises some component of STEAM

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