STEAM Resources – Bay Area

California State PTA Districts: 18, 16, 2, 17, 6, 32, Peralta

“STEM” stands for Science, Technology, Engineering and Mathematics education. Add Art, and you have “STEAM.”

Young people with competency in the STEAM disciplines are more likely to prosper in their lives and their careers.

Building the capacity of young people in science, technology, engineering, and math – and doing so within the humanistic frame that the arts help provide – is essential. They will need a high level of STEAM literacy to make decisions about their daily lives and to fulfill their role as informed citizens. Our schools need to make sure our kids are prepared. Families also play an essential role.

In every community in California, you will find organizations like museums, after-school programs, and other community groups focused on helping kids access STEAM information.

Where to Start in Your Area:

The greater San Francisco Bay Area is rich in STEAM expertise and powerful organizations, particularly given the prominence of its technology industry and higher education institutions. The region has three active STEM/STEAM networks that coordinate education, industry and community resources devoted to STEAM learning: Bay Area STEM Ecosystem, East Bay STEM Network, and R5 STEAM Ecosystem.

Examples of Local STEM/STEAM Resources:

- The California Academy of Sciences sponsors Science Action Club, which works through after-school providers and is targeted to middle school youth

- The University of California, Berkeley’s Lawrence Hall of Science is the country’s only science center that is part of a top-tier, public research university. The Hall partners with world-class scientists, engineers, educational leaders and teachers

- The Tech Museum of Innovation works with local school districts to provide field trips, special programs, curriculum and professional development
• San Jose Museum of Art provides both art docent programs and educational programs that link visual arts to math and science learning

• Buck Institute, in Novato, provides teacher resources and a host of science experiences for students of all ages

• Some additional organizations include:
  o Maker Faire Bay Area: https://makerfaire.com/
  o Exploratorium (on-site activities at their San Francisco location and online educational resources): https://www.exploratorium.edu/education
  o Monterey Bay Aquarium: https://www.montereybayaquarium.org/education
  o The California Coastal Commission’s California Environmental Education Interagency Network: https://www.coastal.ca.gov/publiced/ceein/

**Online Resources:**

• NASA Jet Propulsion Lab: https://www.jpl.nasa.gov/edu/learn/


• STEMworks: http://stem-works.com/

• California STEM Network: https://www.childrennow.org/castemnetwork/

• California Department of Education
  o STEM Resources: https://www.cde.ca.gov/pd/ca/sc/stemintro.asp
  o Visual and Performing Arts Resources: https://www.cde.ca.gov/pd/ca/vp/vaparesources.asp

• Information about the annual California STEAM Symposium: https://www.stemcalifornia.org/Page/1

• California Department of Water Resources: https://water.ca.gov/What-We-Do/Education

• Mad Science for kids from K-6: https://www.madscience.org/

• California Foundation for Agriculture in the Classroom: https://learnaboutag.org/about/index.cfm

**California State PTA Tips and Resources**

• Arts Education webpage: https://capta.org/focus-areas/education/curriculum/arts-education/

• Next Generation Science Standards webpage: https://capta.org/focus-areas/education/curriculum/next-gen-science/

• Ideas for STEAM activities to do at home and at PTA events: https://capta.org/focus-areas/education/curriculum/stem/