“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 Los Angeles County Office of Education can act as an important connection point for PTAs looking for more information about STEAM learning opportunities. The county also has a regional STEM hub and a wealth of organizations that support STEAM activities both in and out of school.

Examples of Local STEM/STEAM Resources:

- The Los Angeles Regional STEM Hub was created to bring together the public, private, nonprofit and academic sectors to develop the region’s capacity around STEM education. The effort was organized by the Los Angeles Area Chamber of Commerce Foundation. The main websites for the STEM Hub include [https://www.unitela.com/lastemhub](https://www.unitela.com/lastemhub) and [https://stemecosystems.org/ecosystem/los-angeles-regional-stem-hub/](https://stemecosystems.org/ecosystem/los-angeles-regional-stem-hub/)

- The California Science Center operates Community Youth Programs that work with local schools, and focus on middle school and high school students. More information is available at [www.californiasciencecenter.org](http://www.californiasciencecenter.org)
• DIY Girls offers after-school and summer programs that provide hands-on STEAM experiences for girls in 4th-12th grade. More information is available at www.diygirls.org

• Discovery Cube has a variety of education initiatives that involve both having school groups visit them on site, and sharing their STEM expertise with educators. Information is available at https://la.discoverycube.org/

**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
  - STEM Resources: https://www.cde.ca.gov/pd/ca/sc/stemintrod.asp
  - 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/