“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:

In heavily populated San Diego County, universities and other local organizations have put a particular focus on science and STEM in informal settings. The San Diego County Offices of Education is the home for two STEAM specific efforts, the Power of Discovery: STEM Hub Initiative and the San Diego STEM EcoSystem Initiative.

Examples of Local STEM/STEAM Resources:

- In Imperial County, a number of organizations work with school districts on STEM-focused programs. Examples include:
  - The Imperial Irrigation District (IID) offers a speakers bureau and other education programs
  - Cal Fresh offers presentations on physical activity, healthy eating and the creation of Cal Fresh youth clubs

- The San Diego County Office of Education maintains an online directory of local organizations that offer programs such as assemblies, field trips, professional development, on-site opportunities and curriculum related to STEAM education. Information and the directory can be found at [https://steam.sdcue.net](https://steam.sdcue.net)

Updated April 30, 2019
• STEM Next, which operates out of the University of San Diego, is a national leader in increasing opportunities in STEM learning for youth both in and out of school. Their work includes identifying and supporting cross-sector collaborations. For more information about what they do, visit https://stemnext.org/about-stem-next

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/