STEAM Resources – Far Northern California

“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 the predominantly rural counties of Northern California, county offices of education often play a pivotal role in coordinating partnerships between school districts, community-based organizations and STEAM experts. In particular, check with the county offices in Mendocino, Sonoma, Butte and Tehama counties. In addition, the Shasta County Office of Education hosts the North State STEM network.

Examples of Local STEM/STEAM Resources:

- Project WILD is a wildlife-based conservation and environmental education program that provides professional development training and educational materials. General information about this national program is available at www.projectwild.org and contact information for the program coordinators in California is available at http://projectwild.org/CaliforniaCoordinator.htm

- Project WET has both national and international networks focused on water education. It provides water resource education materials and workshop trainings for educators at all levels. The project website is at www.projectwet.org. In California, the project is coordinated by the Water Education Foundation and more information is available at www.watereducation.org/project-wet
• 4-H has a long history of involvement with STEM subjects and activities. They can provide “train the trainer” workshops and also have extracurricular programs that vary by county. Their workshops range from one called “Junk Drawer Robotics” to sessions on environmental topics and local resources. Information on their STEM and Agriculture programs is available at https://4-h.org/parents/stem-agriculture

• In Sonoma County, the Sonoma County Children’s Museum, a relatively new STEAM resource in the region, brings workshops to schools and has regular classes and exhibits on a variety of topics throughout the year. Information is available at www.cmosc.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/