STEAM Resources – Central Valley

California State PTA Districts: 8, 11, 21

“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 geographically large Central Valley, with its mix of urban and rural communities, county offices of education play an important role in connecting school districts, community organizations, post-secondary institutions, and funders. In particular, Stanislaus and Tulare County Offices of Education may be helpful. In addition, the Central California STEM Collaborative at Fresno State University works to bring together education, business and non-profit organizations.

Examples of Local STEM/STEAM Resources:

- The Center for Land-Based Learning, headquartered in Winters, is dedicated to teaching California’s youth about the importance of agriculture and natural resource conservation. Their list of partners includes school districts and schools throughout the agricultural areas of California

- 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. More information is available at www.watereducation.org/project-wet

• North Central Valley STEM Center is a regional collaborative partnership between area leaders in education, industry, and businesses from throughout the Northern Central Valley and beyond. The Center’s mission is to help the region prepare the nation’s most STEM-capable graduates. Information is available at www.sjcoescience.org

• SAM (Science, Art, and Music) Academy in Sanger is a non-profit organization that offers unique programming and high-quality instruction for children and communities throughout the Central San Joaquin Valley. Their community-based programs provide accessible, equitable, and engaging ways for youth to explore STEAM. Information is available at www.cvsamacademy.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
  o STEM Resources: https://www.cde.ca.gov/pd/ca/sc/stemintrod.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/