

STEAM Resources – Orange County

California State PTA District: 4

“STEM” stands for **S**cience, **T**echnology, **E**ngineering and **M**athematics education. Add **A**rt, 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 Orange County, there is a vigorous effort to provide informal STEAM learning opportunities. The Orange County Office of Education acts as a central clearing house for learning about community partners.

Examples of Local STEM/STEAM Resources:

- The Orange County STEM Initiative serves as a key connection point for STEAM initiatives in the area. PTAs interested in knowing more about local programs and partnership opportunities in the county can start with this nonprofit organization. Its goal is to create effective partnerships between community stakeholders, including but not limited to families, education, business, government and philanthropy. Learn more at www.ocstem.org
- Partners of the OC Stem Initiative include a large group of philanthropic, post-secondary, industry and education partners. The Initiative has members such as the Tiger Woods Foundation, Kaiser Permanente and the Children and Families Commission of Orange County. The full list is at www.ocstem.org/members

- Science@OC works with schools and districts in Orange County to improve science education, with a particular focus on middle school students. It is a fiscally sponsored project of OneOC, a local nonprofit. Events and descriptions of their work are available at www.scienceoc.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 www.discoverycube.org/oc
- Imagine Science is a partnership among the Boys & Girls Clubs of Garden Grove, Girls Inc. of Orange County, the Orange County 4-H Council and the Anaheim Family YMCA. The partnership engages youth in Orange County with STEM learning activities. More information about the partnership is available at www.imaginesci.org

Online Resources:

- NASA Jet Propulsion Lab: <https://www.jpl.nasa.gov/edu/learn/>
- Power of Discovery Resources: http://powerofdiscovery.org/curriculum_activity.
- 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/>