

August 29, 2017

Dear CSD Elementary Families, Welcome Back!



Perhaps you've seen it: there is a huge push for STEAM education for students today: **Science, Technology, Engineering, Arts, and Mathematics**. Why? Because excellence in these areas foster **critical thinking skills, innovation**, and an edge in a competitive job market.

Because these experiences offer new opportunities for

academic language development. Because our children are **future citizens of the world** and will need to make informed choices based on competency in these areas. STEAM alone is not enough, of course, but we at CSD are proud to offer our elementary students a STEAM Studio experience this year.

Our MPR has been turned into a **STEAM Studio!**: 6 different "STEAM-powered play" stations that students will rotate through with their partners in the course of a week for a half hour M-Th. Activities will support CA Common Core Math, and Next Generation Science Standards and Engineering Practices.

1. **Construction Challenge** – Students will imagine, build design, create, construct, test, and evaluate using materials such as Lego and K'nex.
2. **Maker Space** - Given tools, materials, and monthly challenges, students will invent and unveil their own projects.
3. **Observation Station** – Students will focus on using their power of observation to create scientific illustrations, with attention to detail, analysis, and precision.
4. **Reverse Engineering and Math Games** – Students will have the opportunity to tinker with and deconstruct objects to see how they work. Math games will keep our brains sharp!
5. **Scientific Communication** – Students will practice the language of science and math - observing questioning, claiming, explaining based on evidence, using their STEAM notebooks and ASL recordings.
6. **Apps, Coding, and Robotics** – Students will be exposed to software that they will be able to apply in a variety of situations, learn some basic coding, and we hope get into robotics and 3-D printing in the Spring.

How can you help? For starters, we need donations! If you have tools, materials, **STEAM expertise**, or broken objects that would be good to tinker with, we will have a **Donation Station** set up near the office, or you can contact Math and Science teacher specialists Brenda Call bcall@csdf-cde.ca.gov or Kathleen Mockus kmockus@csdf-cde.ca.gov.



Thank you for helping to encourage creativity in your child!