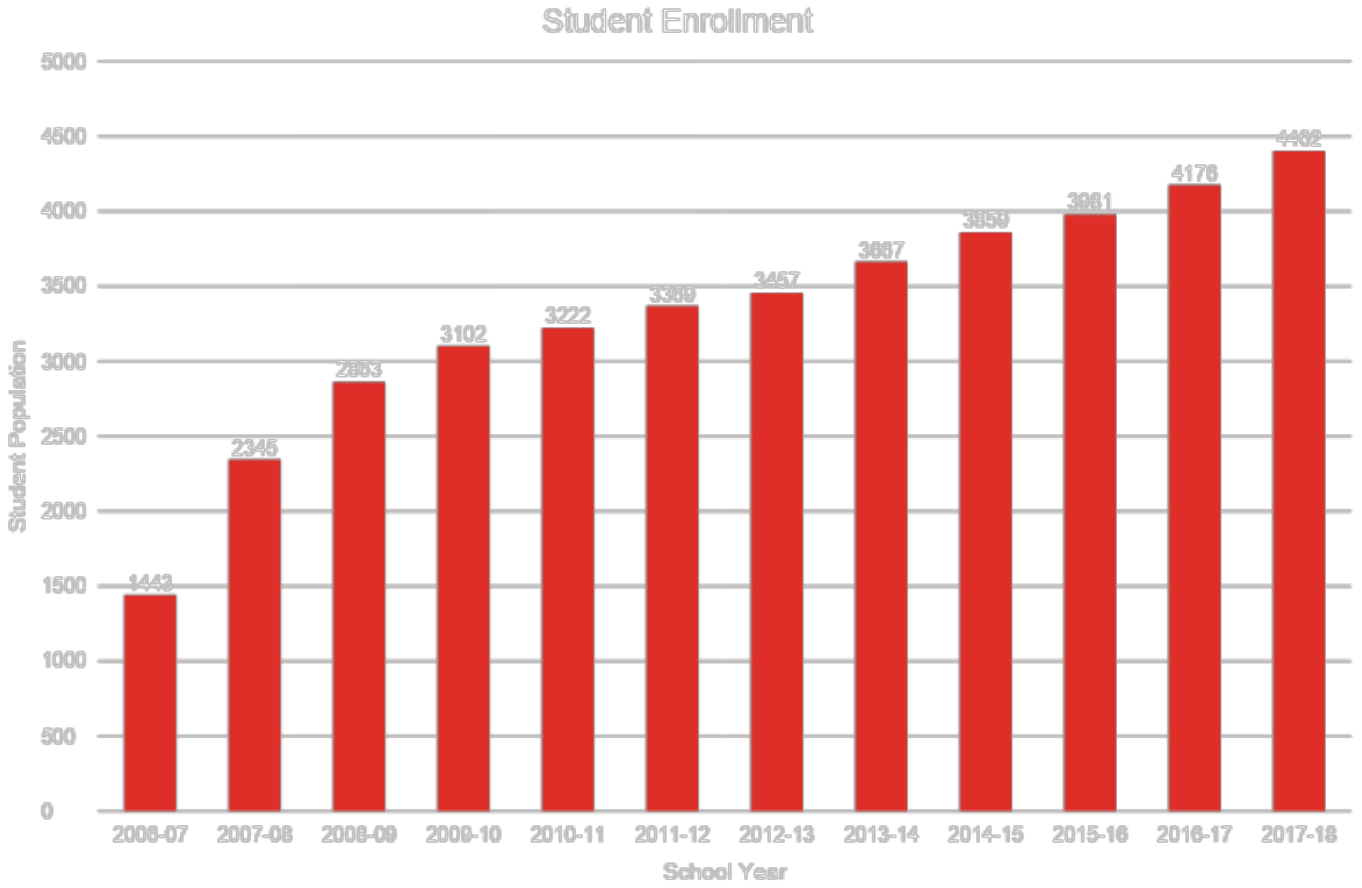
EASTVALE STEM ACADEMY

Eleanor Roosevelt High School
Corona-Norco Unified School District

ELEANOR ROOSEVELT HIGH SCHOOL

ELEANOR ROOSEVELT HS

STUDENT POPULATION



2018-19
4537

EASTVALE STEM ACADEMY

- 100,000 square feet
- 32 rooms
- Administration
- Student Union/ Cafeteria
- College & Career Center
- Specialized Medical Lab
- Specialized Engineering Lab
- Science Labs
- Classrooms
- Research/PD Room

2 pathways

1000 students

Health/Medical Science + Engineering

Access

Access for All

Collaboration

Students, Teachers, District, Community

Partnership

Industry Sectors & Post-Secondary Education

ENROLLMENT EXPECTATIONS

- Complete:
  - 4 years of mathematics
  - 4 years of science
  - to level 3 of a world language
  - the 4-year STEM Pathway

ENROLLMENT EXPECTATIONS

- Take Summer School
- Maintain positive academic standing throughout their 4 years in the program (no F's)
  - Students will be placed on academic probation for the following semester otherwise
- Several programs conflict with eSTEM
  - Including: AVID, PUENTE, UNITY, ASB, and Link Crew

ENROLLMENT EXPECTATIONS

- Complete an annual science and engineering research project in 9th and 10th grade
- Perform community service and/or be involved in a community outreach or community impact project
- Be involved in the STEM Academy's Bring Your Own Device (BYOD) Program

STEM 4-YEAR PLAN

	9th	10th	11th	12th
1 Language Arts	LA 1/1 Hnrs	LA 2/2 Hnrs	LA3/AP Lang	ERWC/AP Lit
2 Math	Int Math 1/ 1 Enhanced	Int Math 2/ 2 Enhanced	Pre Calc Hnrs/ Int Math 3/ Int Mat 3 Enhanced/ Trig/ Finite Math	AP Calc AB/ AP Stats/ Calc/ Financial Alg/ Sports Stats/ Stats
3 World Language	Spanish/ Chinese	Spanish/ Chinese	Spanish/ Chinese	Internship
4 Social Science	PE/Sports	World Hist/ AP WH	US Hist/ AP US Hist	Govt & Econ/ AP Govt & Econ Hnrs
5 Science	Med Bio/ Bio Hnrs	Chemistry/ Chem Hnrs	AP Physics 1/ Physics	AP Bio/ AP Enviro Sci/ Zoology
6 STEM Elective OR	Intro Comp Sci & Intro to Engineering	Medical Anatomy and Physiology	Med Pathology/ AP Chem/ AP Bio/ Sports and Emerg Med	Infectious Diseases/ AP Bio/ AP Chem/ Med Front Office
6 STEM Elective	Intro Comp Sci & Intro to Engineering	CAD 2/ Robotics/ AP Principles of Comp Sci/	Robotics/ AP Comp Sci/ Manufacturing 1/ CAD 2	Robotics/ AP Comp Sci/ Manufacturing 2/ CAD 2
7				
Summer	Health (hybrid course)	PE	Fine Arts	

EASTVALE STEM ACADEMY

9th/10th grade Science & Engineering Research Project

WHAT ARE WE DOING DIFFERENTLY?

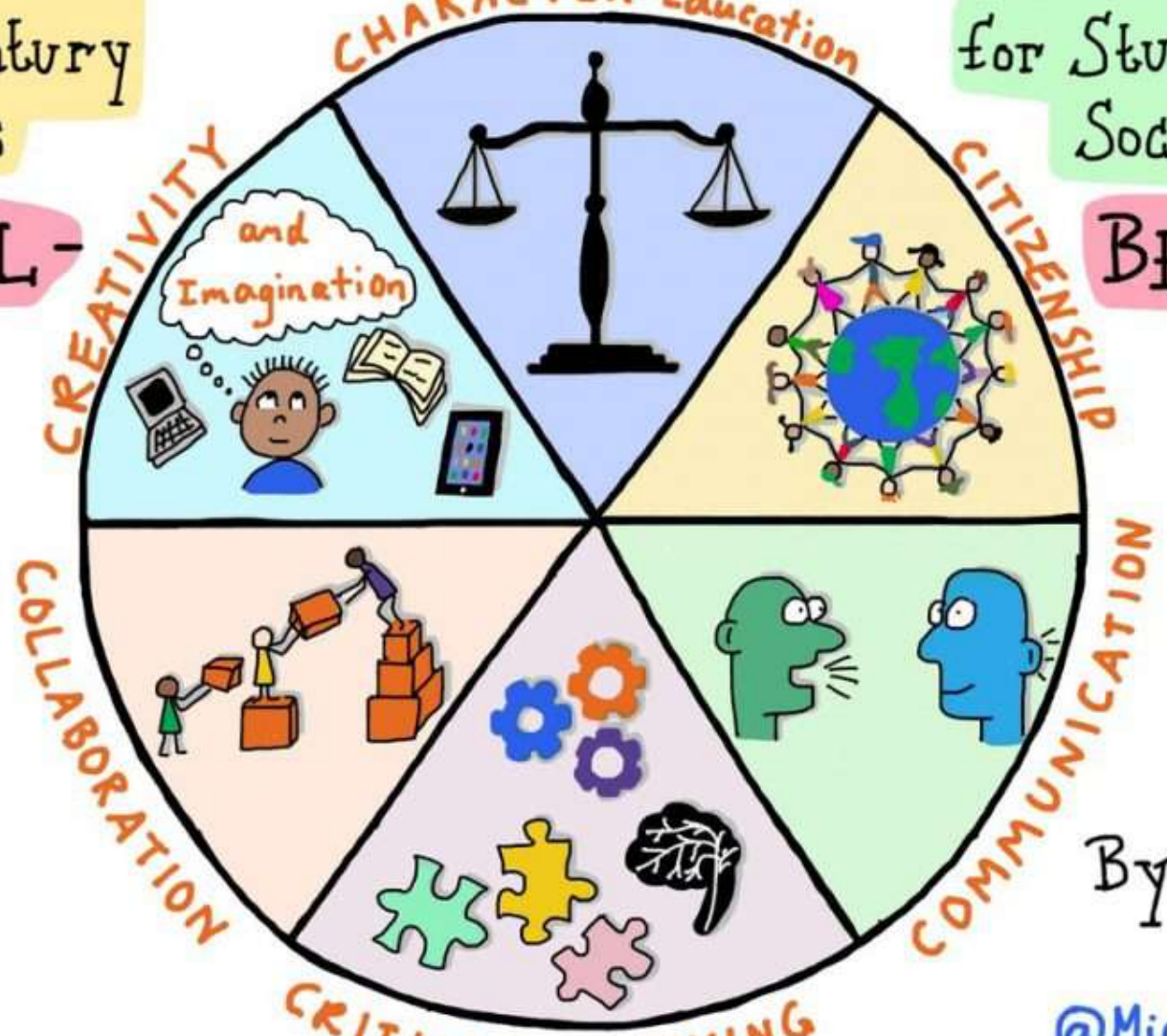
- Access for all BUT commitment and passion for STEM learning… hence the research component requirement
- Common core standards – but focus on literacy across all content area and 21st century skills
- Cross-curricular planning

THE 6 Cs of Education

21st Century skills

for Student and Society

WELL-BEING



By Michael Fullan

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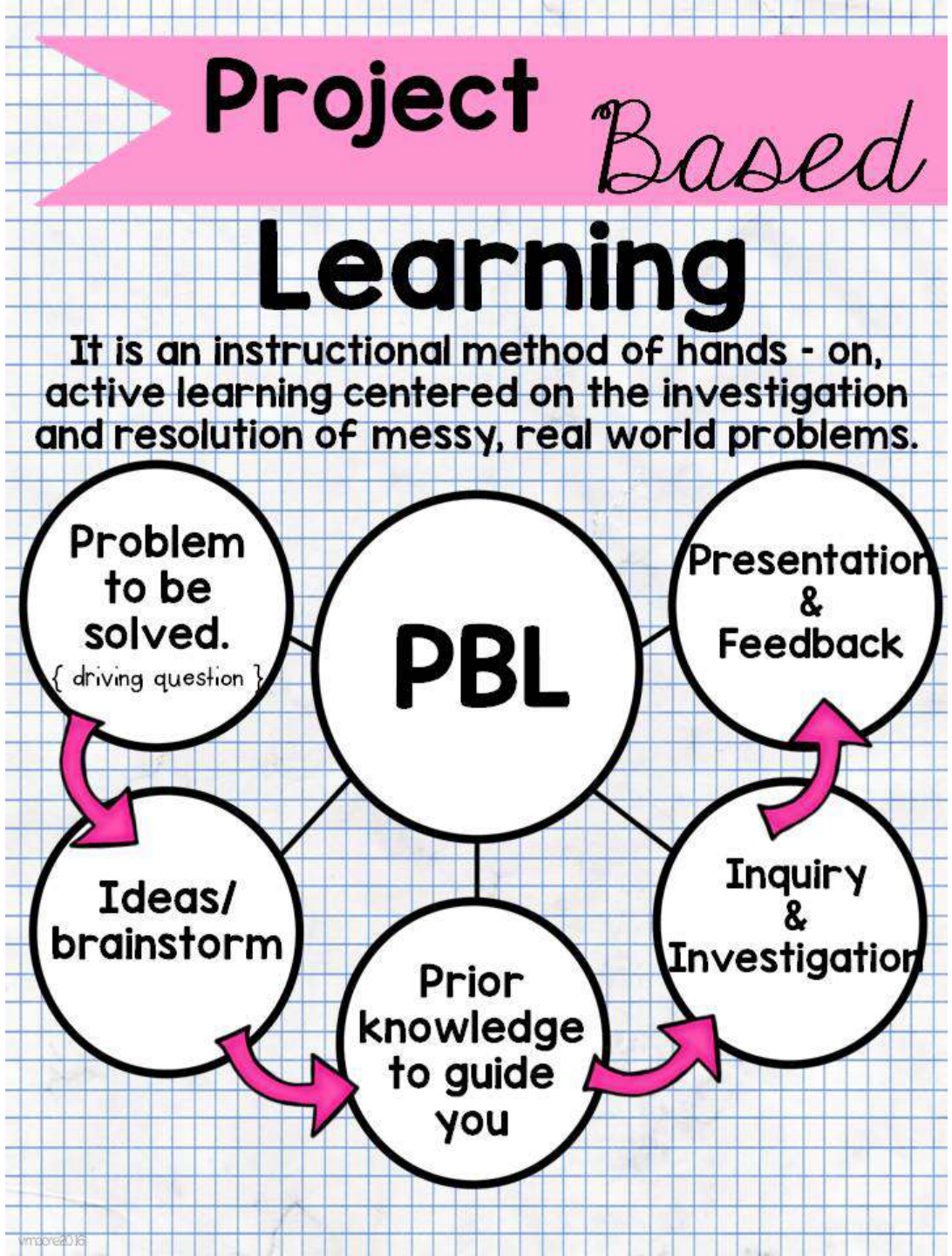
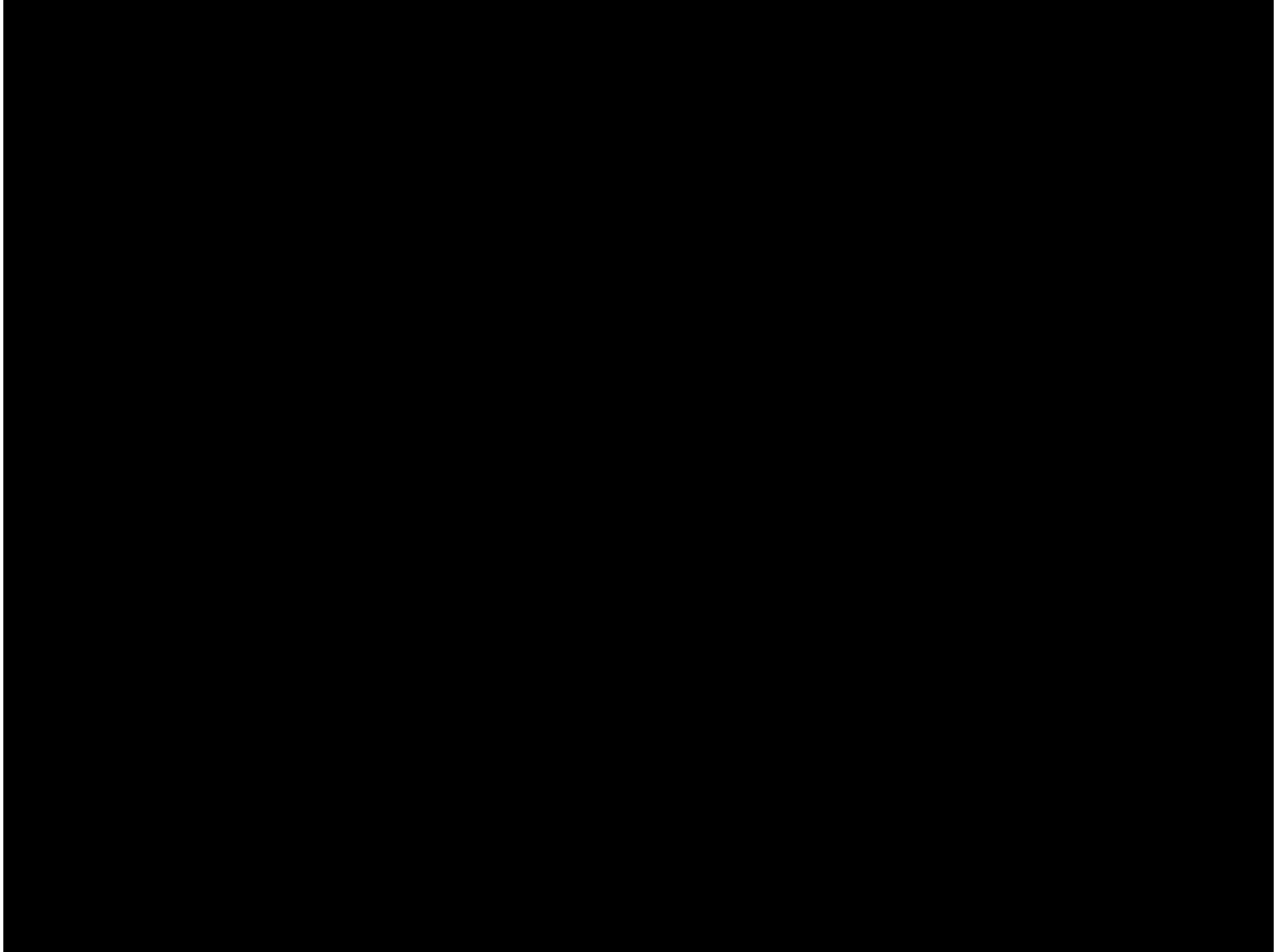
@sylvia duckworth



"Too many students are unprepared for the modern economy and the challenges of the 21st century. Project-based learning (PBL) prepares students for academic, personal, and career success, and readies young people to rise to the challenges of their lives and the world they will inherit."

Buck Institute



Science & Engineering Research Project

Eastvale STEM Academy - STEM Expo

LARGER COMMUNITY

PROJECT INFORMATION & REQUIREMENTS

- 9th & 10th grade requirement, 11th & 12th optional
- CANVAS - timeline, resources, submissions
- Mentors
- Office Hours
- Panel Presentations
- STEM Expo
- Advancement to District, County, State

SUPPORTS

- Mentors
- Office hours
- Canvas
- Lab time/Saturday School
- Parents

HOW CAN PARENTS HELP?

- Spring parent meeting
- Summer assignment
- Review the timeline
- Support your students with their projects/investigations
- Allow them to engage in productive struggle.

2018-2019 eSTEM SCIENCE AND ENGINEERING PROJECT timeline

Name(s)_____, _____, _____

ASSIGNMENT OR PORTION OF PROJECT	DUE DATE	POINTS
5 areas of interest and **2 articles** related to your topic of interest. **You will choose a mentor, with whom you will need to meet regularly** [ELA – CRAAP test & Source Evaluations/Annotated Bib for each source] (Canvas – click on resources for acceptable articles)	***Monday:* 8/20** ***Tuesday:* 8/21** Due day depends on O/E	_____ 5 points
Decide on your topic, group and begin your binder. In your 1.5 inch binder you will need: • 4 articles with ELA style notes (1 sheet protector/article in front, notes on back) • Signed group contracts for each student (if working in a group) • Develop your initial Q & H with variables **(fill in Q&H #1 form)** [ELA – 60 second pitch of Question and Hypothesis] You need to create a group on Canvas for Science Fair (watch the short video on the Canvas page under group info)	***Monday:* 8/27** ***Tuesday:* 8/28**	_____ 10 points
Cont. research. Print, read and take notes on **2 more articles.** These articles must address your specific Q&H. **Refine** your **Q&H** showing changes to your original form and place in binder.	***Tuesday:* 9/4**	_____ 5 points
Cont. research. Print, read and take notes on **2 more detailed articles** related to your refined Q&H. Submit **Q&H form #2 (final)** for approval.	***Monday:* 9/10** ***Tuesday:* 9/11**	_____ 10 points
Construct the essay on the **background** and purpose of your project – state and explain the key scientific principles (include evidence; even formulas, if possible) central to the project itself. Min. of 3 pages. [ELA – background essay] **Experimental Design** - Describe and submit the experiment to prove/disprove the question. Include details on how you will test and how you will measure. Min. of ½ pg. **Experimental Forms** - Human Subjects/animal consent forms due if this applies to you.	***Monday:* 9/17** ***Tuesday:* 9/18** _____ ***Mentor Signature***	_____ 20 points
Materials List - Thorough bullet point list of all items you will utilize during your experiment. **Methods** (Procedure) – number this list step by step. Min. of 25 steps. Begin your **experiment**/investigation; Make observations frequently, regularly; Collect and log your **data.**	***Thursday:* 9/20** ***Friday:* 9/21**	_____ 10 points
Log Checks- detailed notations on experimental observations will be due today. The experiment does not need to be complete. Frequency and quality of data collection will be checked. For each entry include day, date, time in left margin and pertinent data/observations to the right. Only record a new time if there are multiple entries in a day. • Be sure to take **photos** during the experimental portion of the project w/ERHS 2019 present (no students faces please).	**Log Check #1** ***Thursday:* 10/4** ***Friday:* 10/5** **Log Check #2** ***Monday:* 10/15** ***Tuesday:* 10/16** _____ ***Mentor Signature***	_____ 5 points
Complete the experiment. Organize data into **tables** and **graphs** (must be computer-generated). Write up **results**. This section is still about the numbers. Here you will discuss any patterns or important relationships that you have identified within your data.	***Thursday:* 10/25** ***Friday:* 10/26** _____ ***Mentor Signature***	_____ 20 points
Compose your **conclusion**. In this section, you will reflect on your original hypothesis (was it right, wrong and why?), what your data actual says about your question and how your results contribute to the field of science.	***Thursday:* 11/1** ***Friday:* 11/2**	_____ 10 points
Finish your notebook: Write an **abstract**. Submit your **annotated bibliography.** Complete your **appendix** at the end of the binder.	***Tuesday:* 11/13** ***Wednesday:* 11/14**	_____ 20 points
THANKSGIVING BREAK! (11/19-11/23)		
[ELA Class Presentations week of November 26th] Design the **digital visual display** for your project and **submit** to **Canvas.**	***Wednesday: 12/5***	_____ 35 points
Presentation of project: 12/10-12/11	***TOTAL POINTS (150)***	

STUDENTS' CREATIVITY

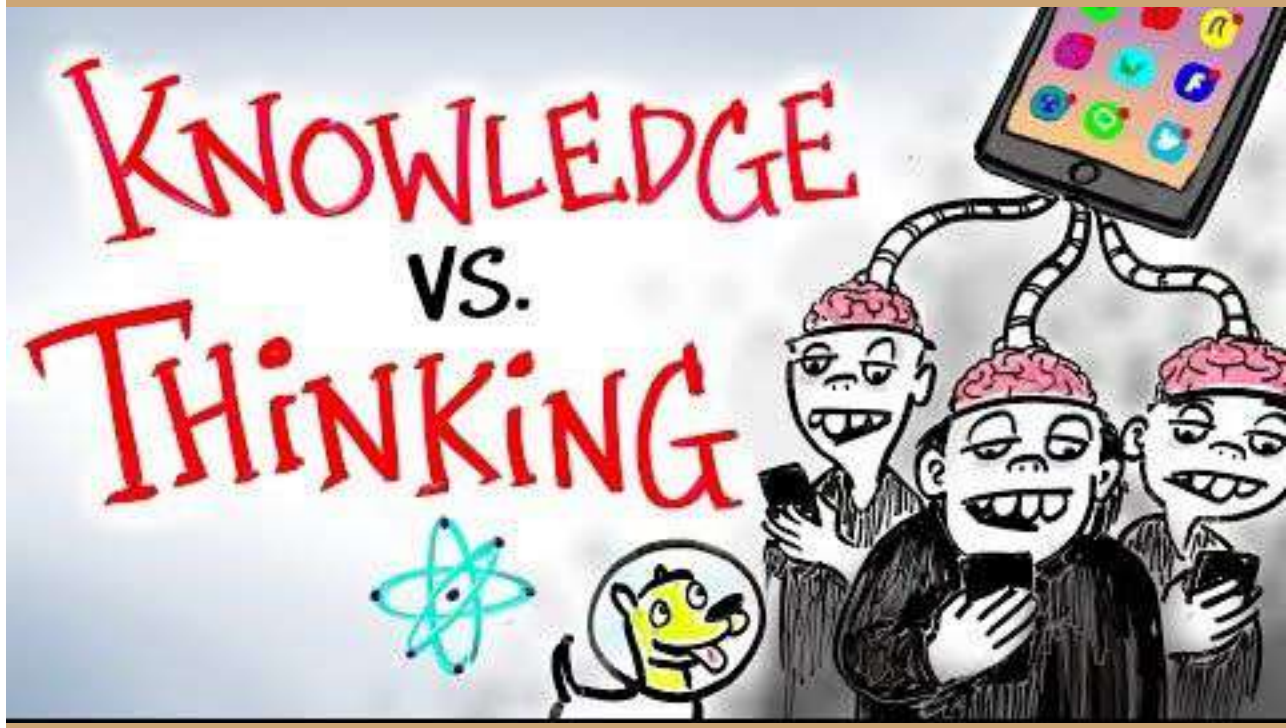
Never underestimate your students' potential for creativity and collaboration when you eliminate boundaries and give them true agency to self-direct their learning.

STUDENTS' CREATIVITY

- How do hypothermic conditions affect the neuroregenerative rates of tissue in planaria? - 9th grade project
- To engineer an electric bicycle supplemented with solar cells and to assess and improve its efficiency. - 9th grade project

KNOWLEDGE VS. THINKING

We would rather students know how to think than just know a bunch of facts. That is not what STEM learning and 21st century skills are all about!



EASTVALE STEM ACADEMY

2019-2020 Enrollment Process

ONLINE APPLICATION

- Visit our Eastvale STEM Academy website for the online application.
- Opens Sunday, November 11, 2018 at 12:00am
- Closes Sunday, November 25, 2018 at 11:59pm
  - You cannot submit before or after the online application window. All applications must be submitted electronically no later than 11:59pm on the day of the application deadline.
  - Time stamped

LOTTERY PROCESS

- Each year, we will admit approx. 190 students
- Each student applying for the 2019-20 school year will be issued a lottery number in December 2018 or January 2019 via e-mail.
  - It is important that parents provide us a current and valid e-mail address. Please save the e-mail with your lottery number for future reference
- The lottery to select the students will be held in January 2019
  - Date, time, and location will be e-mailed out to applicants when lottery numbers are issued
  - Lottery numbers will be randomly drawn based on priorities until the available spaces are filled
  - Remaining students will be placed on a waitlist in the order their number is drawn
- Accepted students will be notified via email by February 2019
- Lottery results will be posted on our website at that time

LOTTERY PRIORITIES

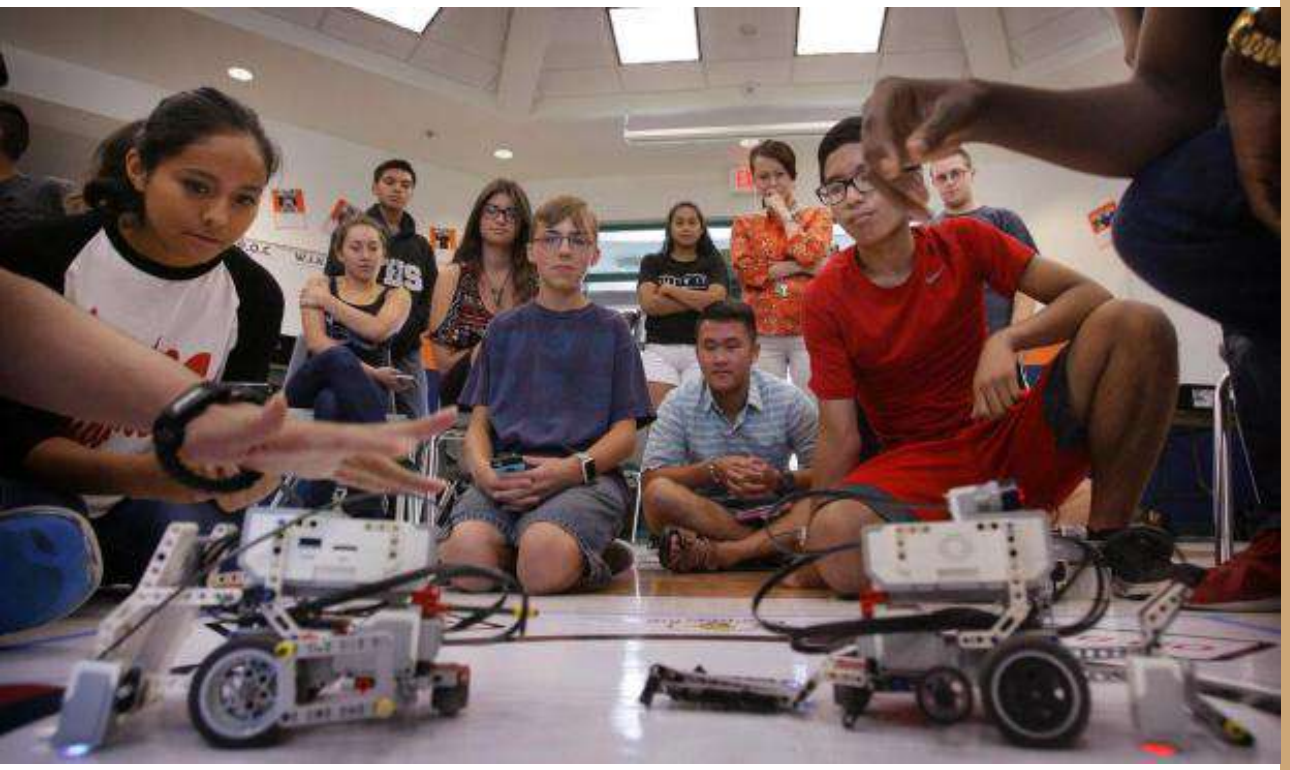
The following priorities have been established for enrollment via a lottery system (these priorities do not pertain to late applicants):

- Priority 1: Eastvale residents attending Ramirez and River Heights (home school is ERHS)
- Priority 2: Eastvale residents attending another school other than Ramirez and River Heights (home school is ERHS)
- Priority 3: Non-Eastvale residents attending Ramirez or River Heights on a district transfer
- Priority 4: All other students

ENROLLMENT TIMELINE

- **November** – Parent/Student STEM Information Nights
- **November 11 – 25** – Online STEM Application window
- **Late December/Early January** – Issue lottery numbers if needed
- **Late January** – Lottery & Acceptance List
- **February** - Parent night of accepted students
- **By end of February** – Decline letters due if parents wish to withdraw from program
- **March** - Course selections with counselor
- **March - end of May** - 4-Year Plan Parent Meetings with counselor
- **Early June** - STEM Research Institute

OUR PROGRAM



- 4 years of Math
- 4 years of Science
- a-g completion
- CTE Pathways/STEM electives
- SSP Grant Recipient
- Solar Cup Grant
- Science & Engineering Fair Competitions
- Project-Based Learning
- Dual Enrollment with Norco College
- Internship
- Partnership
- Field Trips/Guest Speakers

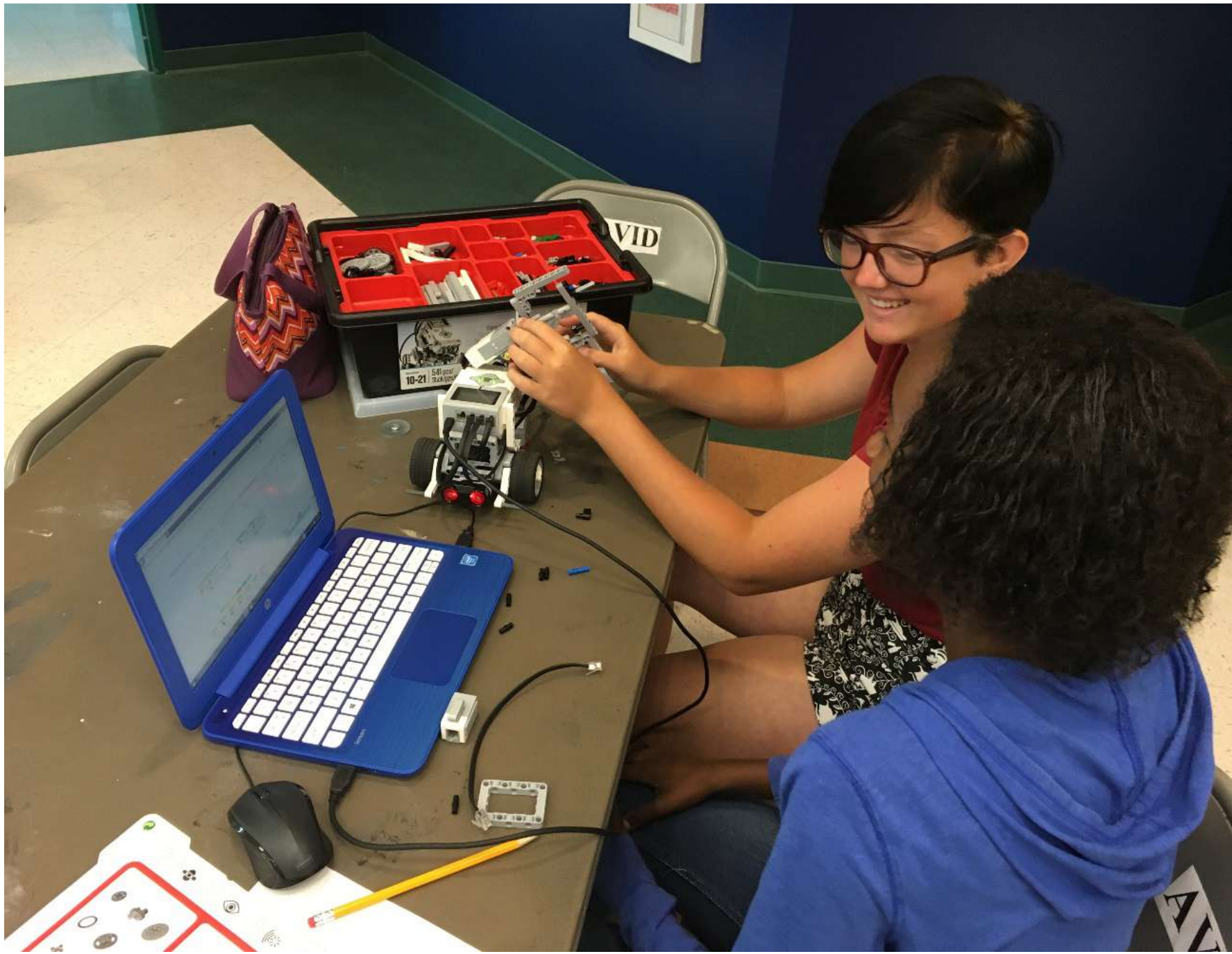
We prepare our students to be college and career-ready in the STEM fields

LOMA LINDA UNIVERSITY HEALTH – MARCH 2017

FIELD TRIPS

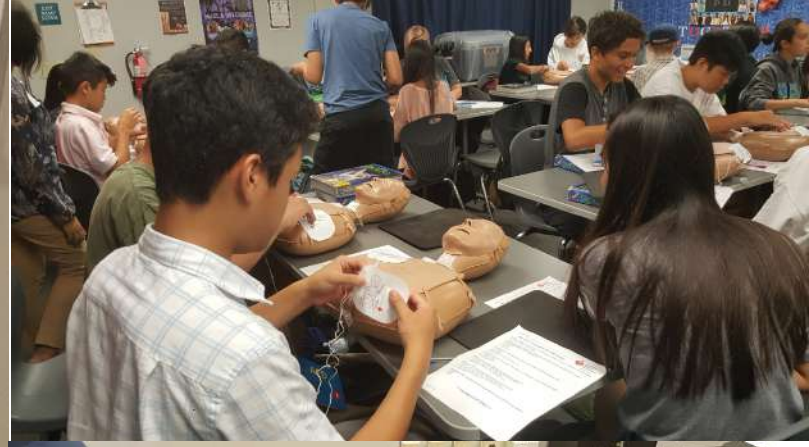
STEPCON - OCT 2018
VIRGIN ORBITS - APR 2018
UC RIVERSIDE – NOV 2017
MANUFACTURING DAY – OCT 2017
AMR, RIVERSIDE – OCT 2017
CBU, AVIATION – SEPT 2017
KINEMATICS, NORCO – DEC 2016
RIVERSIDE UNIV. HEALTH SYSTEM – OCT 2016

NORCO COLLEGE ROBOTICS CAMP



INLAND HEALTH PROFESSIONS COALITION – CTE INCENTIVE GRANT

STEM STUDENTS CPR TRAINED & AED TRAINED



HAVE QUESTIONS? COMPLETE THIS SURVEY

bit.ly/stemparentqa