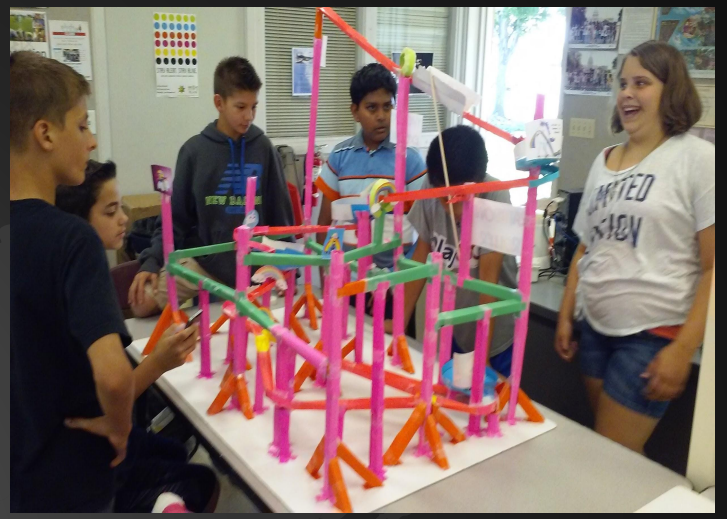
SUTTER STEM ACADEMY

Preparing Students for a
Global Economy though all subjects



Updated 2/12/25





Sutter STEM Academy

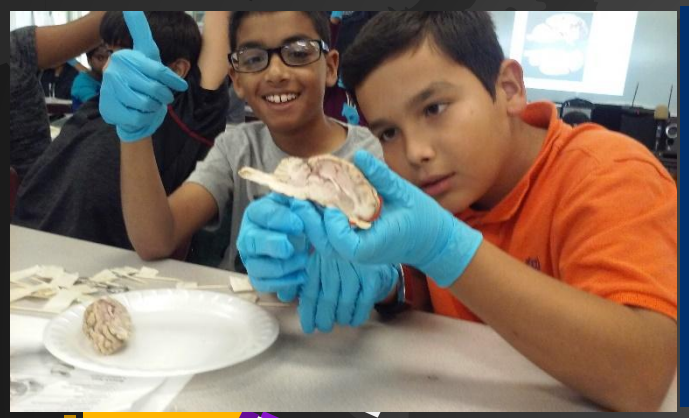
uses an interdisciplinary approach to inquiry-based learning, focusing on school to careers pathways.







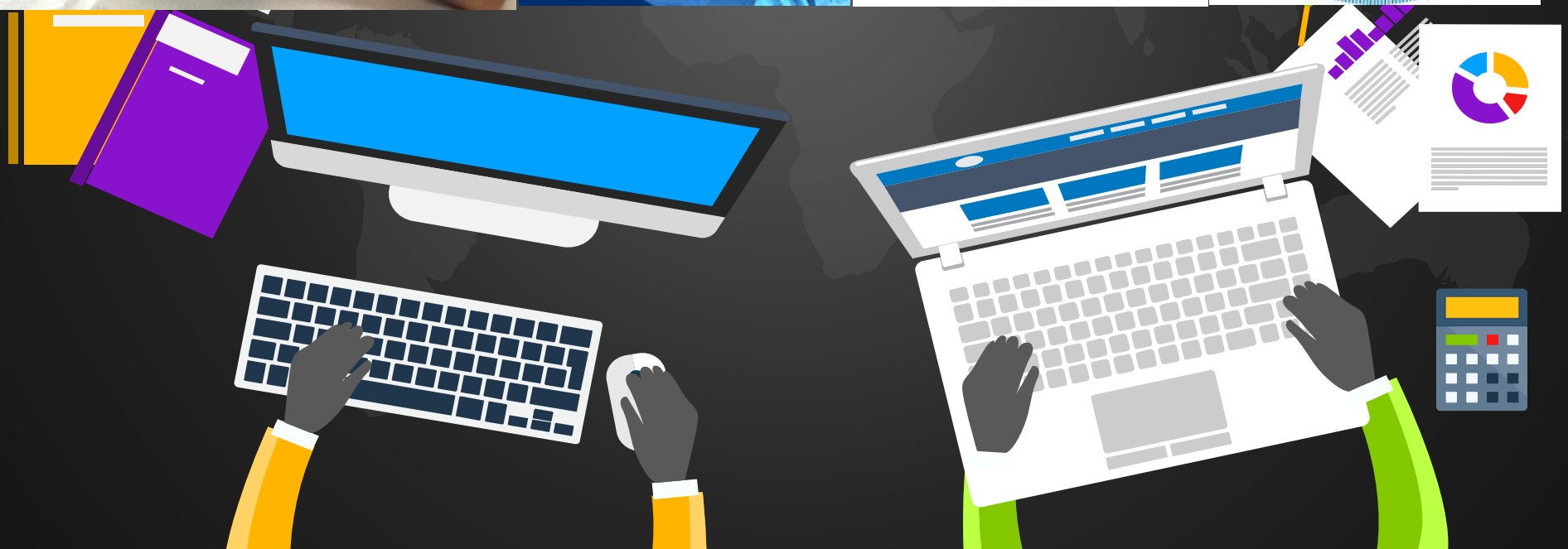
What are STEM and middle school all about?





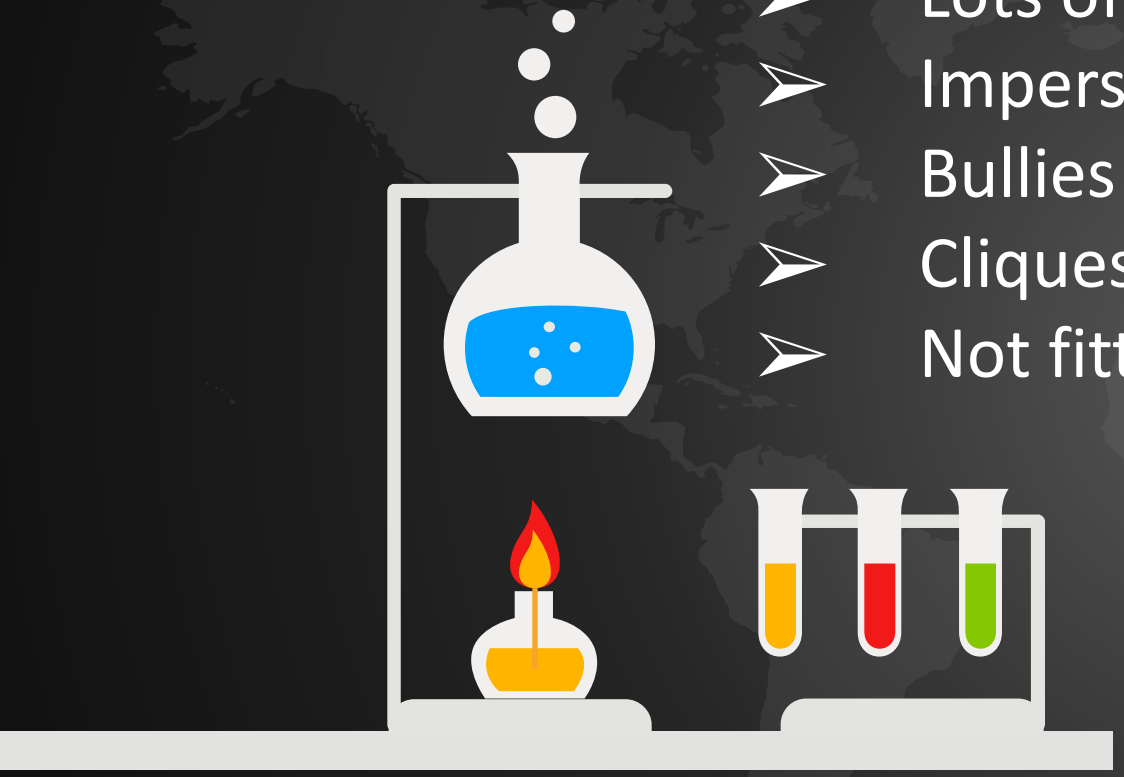






Common Concerns about Middle School

- BIG school...lots of students
- Lots of homework
- Impersonal teachers
- Bullies
- Cliques
- Not fitting in









The reality...



- Sutter IS a big school with lots of students, but there are only 175 students in STEM and you all will have the same teachers.
- STEM teachers work closely with each other to ensure that we are not overloading students with too much homework.
- ALL of the teachers and staff at Sutter care a lot about our students!
- We strive to create an environment where ALL students feel supported and find a place to fit in. We do not tolerate bullying or exclusion of students.

Some Common Thoughts about STEM



- I am not good enough at math!
- I don’t know what engineering is!
- There will be too much homework!
- What about the arts?
- I don’t know a lot about computers.

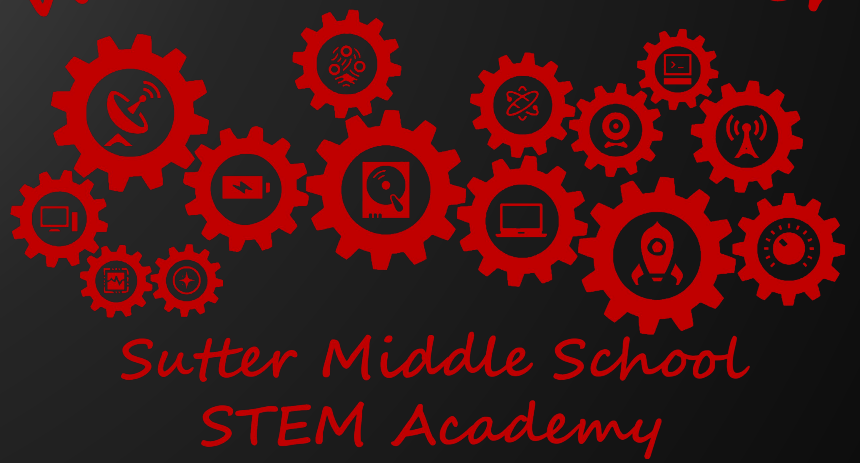
STEM is Accessible to Everyone!

- Students are taking grade level mathematics, like all students, but with an emphasis on STEM.
- Engineering is an open-ended design process where failure is expected in order to improve.
- Homework is grade level appropriate, comparable to non-STEM classes.
- Integration of creative opportunities is provided in each class.
- Technology isn't just computers; computers are a tool that students will learn to use.



STEM is Accessible to Everyone!

We believe that ALL students deserve access to the opportunities afforded by STEM and middle school is the perfect age to introduce students to interdisciplinary projects and STEM related experiences taught at grade level.



How is the STEM Academy different from the rest of Sutter?

1. Students will all have the same set of teachers and will travel with the same students throughout the day (except for PE and lunch)

2. Students will have science, history, STEM math, STEM English, and the STEM Engineering and Technology elective



3. Students do NOT need to take a test to qualify…if you want to be in the program you CAN be – ALL of your teachers will be working together to ensure your success

4. Students CANNOT be in Honors English, Above grade level in Math, or in Music, Art or Spanish (Zero period is not an option)



What are the Benefits?





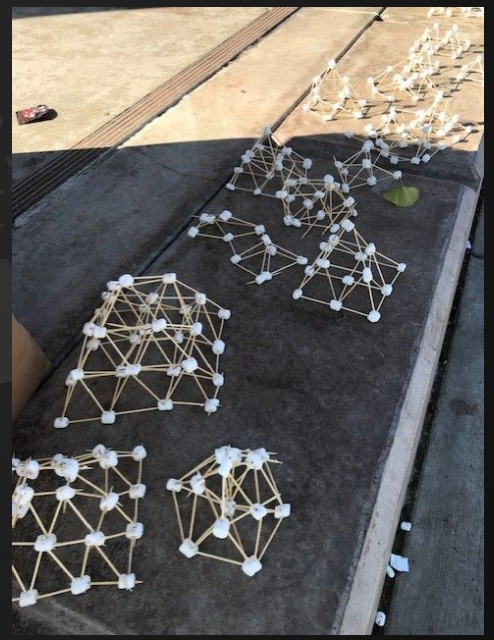
- Teachers and students form strong sense of community
- Inquiry-Based Learning – all subjects have opportunities to integrate
- Curriculum with hands-on projects applying real world applications
- Access to mentors collaborating with students
- Field trips with authentic learning opportunities

What are the Benefits?

- Flexible schedules to allow for longer periods for project work, science labs, or guest speakers, if needed
- All STEM teachers will use the same set of expectations for:
  - writing
  - critical thinking
  - reading strategies
  - mathematical reasoning
  - engineering design/build process
  - scientific inquiry
  - oral presentation
  - research
  - interdisciplinary projects







Interdisciplinary Project Examples

STEM uses interdisciplinary projects to create an authentic learning experience.



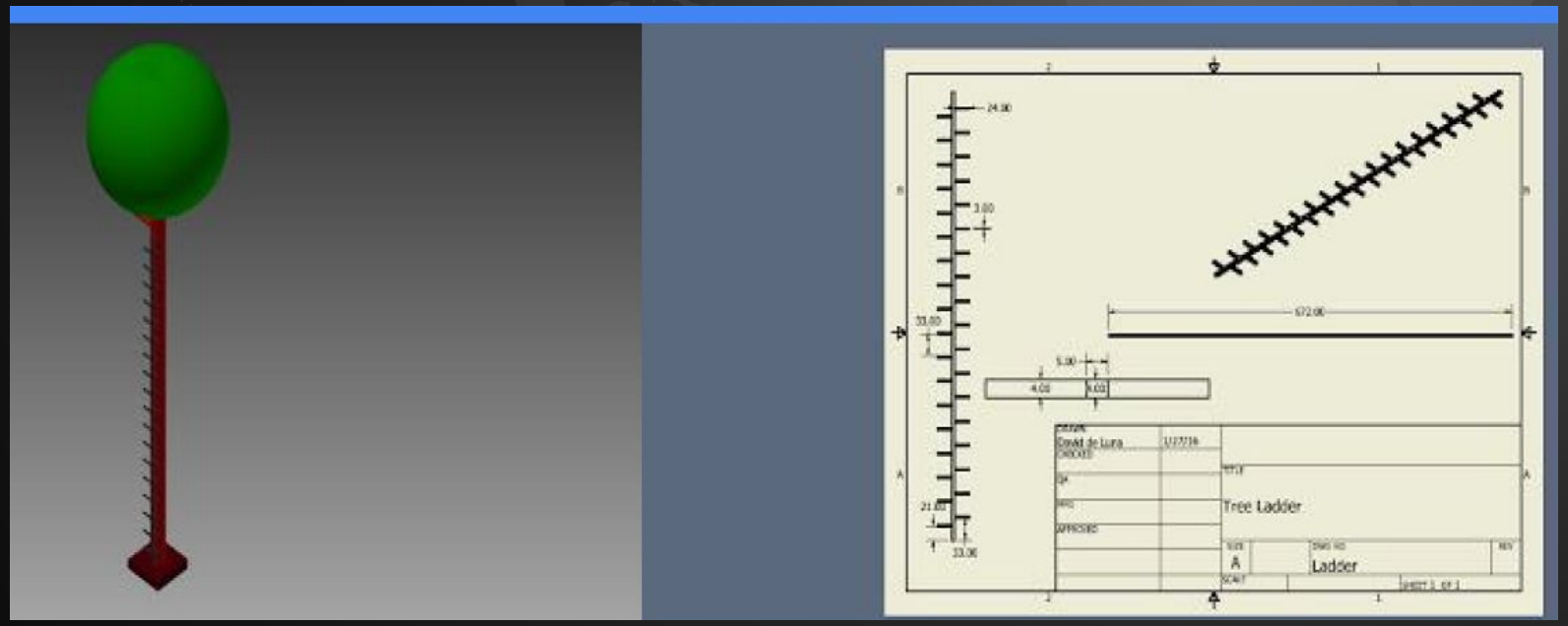






Interdisciplinary Project Examples

- **Changemakers Project (6th Grade)** - What are changemakers? (science), changemaker research (English), video production (technology), storyboarding (history), data analysis (math)
- **Zoo Engineering Project (7th Grade)-** Design and Modeling (technology), Ecosystems (science), study the geography and culture of a country (history), writing a research paper (English), project cost analysis (math)





What do we do in STEM Technology?

6th Grade

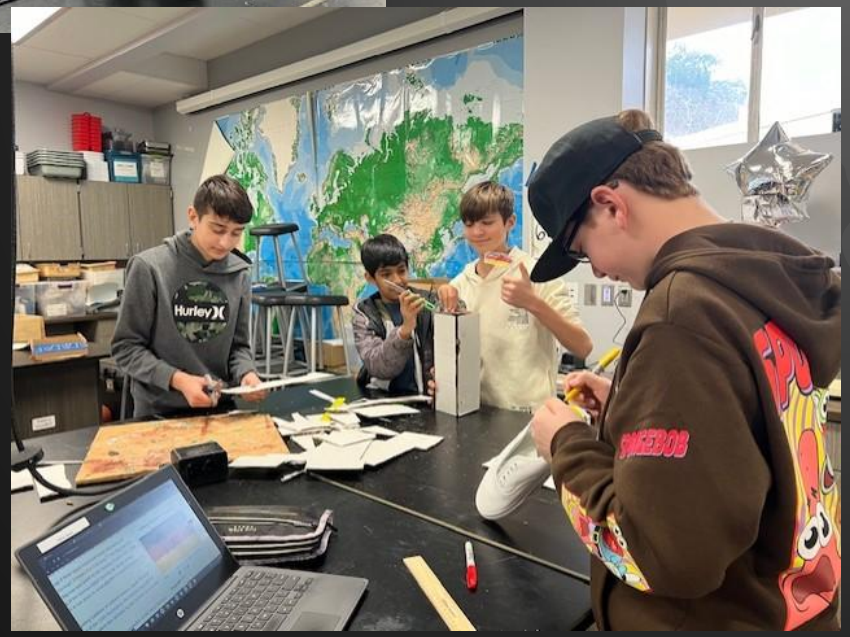
- **Product Innovation and Design**
  - Students learn how to measure and draw accurately, and use this knowledge to create 3D models which they will have an opportunity to print.
- **Aeronautics and Space Exploration**
  - Students learn about the principles of flight, what a pilot does, design air and spacecraft, see how humans survive in space and learn about technological advances.





What do we do in STEM Technology?

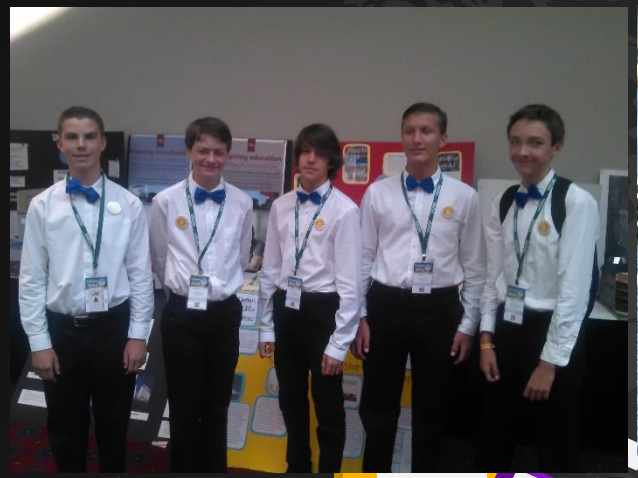




7th Grade

- **Sparks and Circuits**
  - Students learn how electricity is created, how it is related to magnetism, create circuits and learn to solder.
- **Physical Computing**
  - Students learn about programming microcontrollers to allow them to interact with the physical world and respond to input and produce output..

Genius Hour







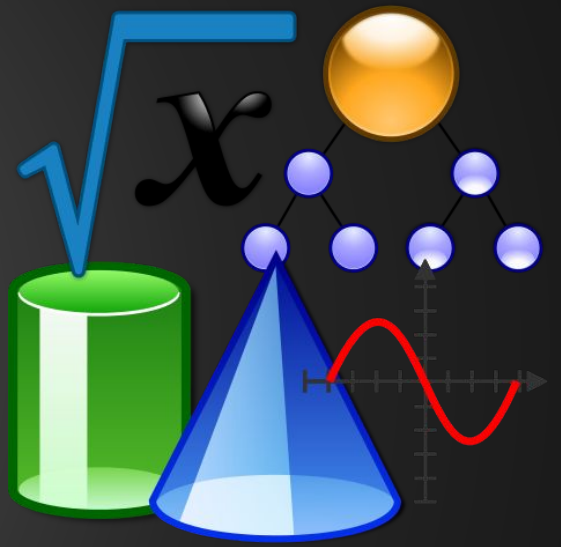




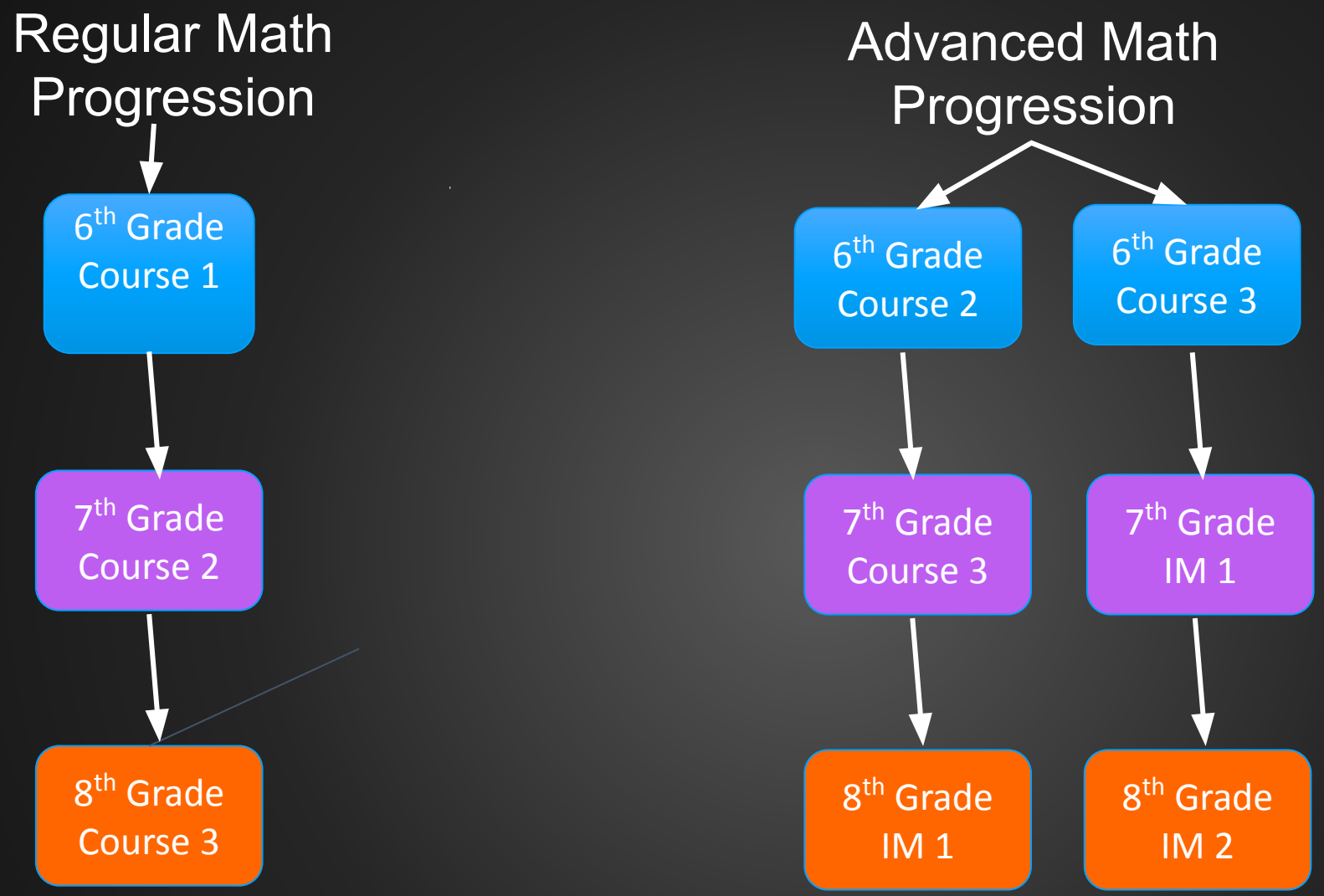


STEM Math and English

- STEM math and English are grade level courses, however students will have the opportunity to advance their understanding of concepts beyond grade level.
  - At the end of the year, students' grades and tests will be evaluated to determine eligibility for Honors English, if desired.
- The next slide shows how students can move through the math curriculum at Sutter.







Students in advance placement math classes must maintain at least a “B-” average to continue in the advanced program.

Questions?



Check the end of this presentation for some questions we covered in our Q&A session.

- Don’t forget to mark STEM as your #1 choice on your registration form!



More Questions?

Email your counselors:

Mrs. Hanrihan (P-Z)
jhanriha@fcusd.org
Ms. Komatsu (H-O)
mkomatsu@fcusd.org
Ms. Crist (A-G)
lcrist@fcusd.org

- Don’t forget to mark STEM as your #1 choice on your registration form!

Teacher Emails

Heather Linsley (Science) - hlinsley@fcusd.org
Kim Dixon (Math) - kdixon@fcusd.org
Diana Vorhauer (English) - dvorhauer@fcusd.org
Douglas Gebhart (Technology) - dgebhart@fcusd.org
Jesse Paiz (History) - jpaiz@fcusd.org

- Don’t forget to mark STEM as your #1 choice on your registration form!

Frequently Asked Questions

Question: Can students take Honors classes / spanish / music and be in STEM?

Answer: Unfortunately not. Every STEM student takes a similar course of work, at their grade level.

Frequently Asked Questions

Question: How are students chosen for STEM?

Answer: By lottery, though there are equal spots reserved for both boys and girls.

Frequently Asked Questions

Question: How is STEM curriculum different from “regular” school?

Answer: STEM and “regular” school both teach the same standards. The difference is in the way the material is taught. STEM is taught with a hands-on, STEM focus.

Frequently Asked Questions

Question: Are students required to stay in STEM for both 6th and 7th grade?

Answer: No, students may leave STEM for 7th grade in order to do honors classes, or music.

Frequently Asked Questions

Question: Can students join STEM in 7th grade without taking it in 6th grade?

Answer: Yes, however, priority for 7th grade STEM is given to students who took STEM in 6th grade.

Frequently Asked Questions

Question: Do STEM students follow the same bell schedule as the rest of the school?

Answer: Yes.

Frequently Asked Questions

Question: Can STEM students do Yearbook or be on Student Council?

Answer: No, both of those are separate elective classes, and STEM students take the Technology elective.