

EDISON HIGH SCHOOL



EDISON HIGH PATHWAYS

EDISON STEM PROGRAMS

- All pathways are STEM (Science, Technology, Engineering, Mathematics)
- 4 Pathways
 - Biomedical Science and Technology
 - Engineering Design and Development
 - Computer Science
 - Green Energy and Technology Academy

PATHWAY PROGRAM

- Pathway courses are series of linked electives taught over four years
- Pathway electives are organized around an industry theme and introduce the student to the many facets of work in that industry
- Pathway courses are in addition to the core courses (not supplanting them) including AP opportunities
- Pathway classes are designed to be rigorous and provide project based learning opportunities
- Pathway students course of study is designed to meet (and exceed in some cases) requirements for college admission
- PLTW (Project Lead the Way) provides curriculum for many of pathway classes and is a nationally recognized curriculum that is well known and respected amongst college admissions officers

PATHWAYS COMMITMENTS

- Improve our Community Through Mentoring, Education, and Leadership
- Embrace & Practice Innovative Thinking & Entrepreneurship
- Partake in Four Years of Rigorous Science & Math Courses
- Have a Clearly Articulated Plan for Success after High School
- Provide opportunities to engage in industry specific projects to better help students understand their own career goals
- Provide Opportunities to hear from professionals in the field, take trips to see industry in action, visit colleges

BIOMEDICAL SCIENCE & TECHNOLOGY PATHWAY*

The Biomedical Science and Technology pathway allow students to:

- Investigate the roles of biomedical professionals
- Study the concepts of human medicine and public health
- Examine the structure and interactions of human body systems
- Explore the prevention, diagnosis, and treatment of disease
- Work collaboratively to understand and design solutions to the most pressing health challenges of today and the future

*This is a Linked Learning Pathway

BIOMEDICAL SCIENCE & TECHNOLOGY PATHWAY

	9 th Grade	10 th Grade	11 th Grade	12 th Grade
BioMed (P)	Principles of BioMed	Chemistry (P) Human Body Systems	Physics Medical Interventions	AP Environmental or Zoology BioMedical Innovations
BioMed (G/H)	Principles of BioMed	Chemistry Honors Human Body Systems	AP Chemistry or AP Physics I Medical Interventions	AP Biology or AP Physics I or C AP Environmental BioMedical Innovations
BioMed Mental Health	Principles of BioMed	Chemistry (Honors or P) Modern World History (Mental Health)	Physics or AP Physics I or AP Chemistry AP Psychology	Zoology AP Physics I or C AP Biology AP Chemistry AP Environmental Abnormal Psychology

BIOMEDICAL SCIENCE & TECHNOLOGY PATHWAY

- Participation in a community health projects
- Guest Speakers & opportunities professionals in the health field
- Trips to hospitals, labs, & colleges



ENGINEERING DESIGN AND DEVELOPMENT PATHWAY*

The Engineering Pathway focuses on:

- Teaching students the engineering design, modeling, and practice process
- Exploring all the different types of engineering career emphasis that are available for future study
- Providing students with an opportunity to work with the tools used to manufacture and prototype their designs

*This is a Linked Learning Pathway

ENGINEERING DESIGN & DEVELOPMENT PATHWAY

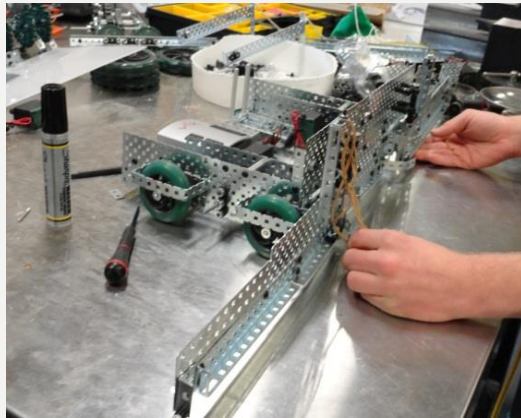
	9 th Grade	10 th Grade	11 th Grade	12 th Grade
Engineering (P)	Biology (P) Intro to Design	Physics (P) Principles of Engineering	Chemistry (P) Electronics Engineering	AP Physics 1 or C Engineering Research & Development
Engineering (G/H)	Biology G Intro to Design	Physics (G or API) Principles of Engineering	Chemistry (H) Electronics Engineering	AP Physics C Engineering Research & Development

ENGINEERING DESIGN & DEVELOPMENT PATHWAY C/O 2019 ONLY!

	9 th Grade	10 th Grade	11 th Grade	12 th Grade
Engineering (P)	Physics (P) Intro to Design	Biology (P) Principles of Engineering	Chemistry (P) Electronics Engineering	AP Physics I Engineering Research & Development
Engineering (G/H)	Physics (G) Intro to Design	Biology (G) Principles of Engineering	Chemistry (H) Electronics Engineering	AP Physics C Engineering Research & Development

ENGINEERING DESIGN & DEVELOPEMENT PATHWAY

- Participation in a projects that address issues in the community
- Guest Speakers & opportunities with professional from the field
- Trips to industry, labs, & colleges
- FRC & Vex Robotics Teams
- Manufacturing & Electronics Lab



LINKED LEARNING PATHWAYS

ENGINEERING AND BIOMED

Pathway	9 th	10 th	11 th
Biomedical Sciences	English PE Biomed Science Course	English Chemistry Biomed Science or World History	English US History Biomed Science or AP Psychology
Engineering	English Biology Engineering Course	TBD	TBD

COMPUTER SCIENCE PROGRAM

The Computer Science Pathway engages students in:

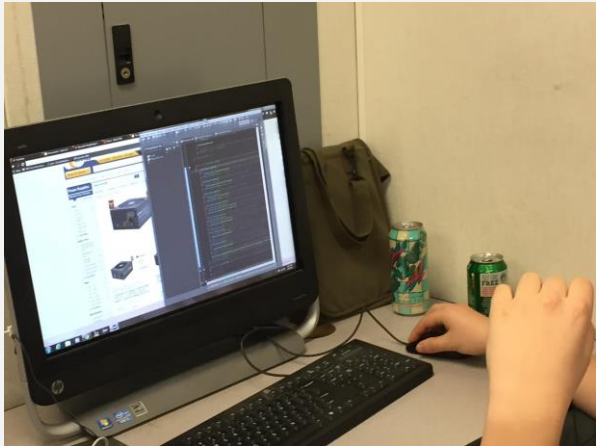
- Exploring the rapidly changing fields of information technologies
- Emphasizing computer programming and software development
- Focusing on building the habits of mind of programmers
- Building a foundational understanding of the logic used in programming

COMPUTER SCIENCE PROGRAM

	9 TH GRADE	10 TH GRADE	11 TH GRADE	12 TH GRADE
College Prep	<p>Biology (P)</p> <p>Computer Science Engineering</p>	<p>Chemistry (P)</p> <p>AP Computer Science-Principles</p>	<p>Physics (P)</p> <p>AP Computer Science A</p>	<p>Zoology Environmental Science AP Environmental AP Physics I</p> <p>Computer Software Design and Development</p>
Gate/Honors	<p>Biology (G)</p> <p>Computer Science Engineering</p>	<p>Chemistry (H)</p> <p>AP Computer Science-Principles</p>	<p>AP Physics I AP Chemistry</p> <p>AP Computer Science A</p>	<p>AP Physics I AP Physics C AP Chemistry AP Biology AP Environmental</p> <p>Computer Software Design and Development</p>

COMPUTER SCIENCE PROGRAM

- Participation in projects
- Guest Speakers & opportunities with professionals in the industry
- Trips to industry labs, & colleges



GREEN ENERGY & TECHNOLOGY ACADEMY

The Green Academy students will:

- Explore the different types of energy with an emphasis placed on green and renewable energy sources
- Use tools and design projects aligned to industry needs

GREEN ACADEMY

	9 th Grade	10 th Grade	11 th Grade	12 th Grade
Green Academy	Biology *This pathway begins in 10 th grade	Physics Intro to Energy	Chemistry Electrical Engineering	AP Environmental Advanced Electronics

GREEN ACADEMY

- Edison's first STEM pathway
- Recognized by the California Department of Education as a model California Partners Academy
- Special partnership with PG&E
- Between 11th-12th Grade all Academy students have an opportunity to participate in a paid internship with PG&E



PLEASE NOTE

- All science pairings are recommended and students may opt into other science course **HOWEVER**
- Participation in 4 years of math and science is a requirement of pathway participation
- Some courses and sequencing may be subject to change

INTERESTED IN A PATHWAY?

- Please pick up a form to fill out
- Please return either tonight or send to Edison
- Forms need to be turned into Edison not your middle school counselor
- Students will be enrolled using interest form or online elective tool in the Spring
- If you are coming from out of district please be sure to complete the interest form and note it on your enrollment packet
- Interest in Pathways does not impact your magnet application
- For additional information or assistance please contact:

Jennifer Kalashian.

Edison Pathway Coordinator

Jennifer.Kalashian@fresnounified.org