

### Work Accomplished This Year

#### **Section 18: Flaperon (Left Side)**

- Page 18-02 Steps 1-3 : Done
- Page 18-03 Steps 1-6 : Done
- Page 18-04 Steps 1-8 : Done
- Page 18-05 Steps 1-4 : Done
- Page 18-06 Steps 1-6 : Done

#### **Section 29A: FWD Upper Fuselage (Map Box Portion)**

- Page 29A-07 Steps 1-6 : Done
- Page 29A-08 Steps 1-8 : Done
- Page 29A-09 Step 1 : Done
- Page 29A-10 Not Done
- Page 29A-11 Not Done

#### **Section 25: Tailcone Attachment**

- Riveted bottom and sides of fuselage to tailcone
  - No particular instructions in plans

### Other Achievements

- **Picked Up Wing Holders (Hunter and Michelle)**
  - We drove down to Gary's hangar in the Petaluma Airport to pick up a wooden rack to hold the wings once they are completed
  - They live in the auto shop space
- **Received Finishing Kit Shipment (Kendal and Nathan)**
  - Set up delivery time and date after school
  - Signed for the package and placed it in the auto shop
- **Project Exhibition Night (Hunter, Michelle, Kendal)**
  - We set up the maker space to showcase the work that we have done this year and previous classes as well
  - We presented our project to the parents and students that came
- **Plane Fundraiser (Michelle)**
  - Helped set up and run the fundraiser
  - We raised \$6,200 woohoo!
- **STEM Awards night**
  - We helped set up and clean up the plane for the awards night
  - We collaborated with first period and also explained our project to parents that came by

## **Hunter Mahan, Michelle Frid, Kendal Scheiner**

### **Reflection**

This year, we got the amazing opportunity to build a fully functioning real airplane. Going into the project we didn't know what to expect, but each and every one of us learned so much. We learned new skills such as riveting, using band saws, clecos, drilling with different bits, and using new materials to secure parts. The mentors added a new perspective to the project, because they were there everyday to guide us in making sure everything was being done correctly. This was different from previous years where we had to problem solve by ourselves, but as a group we really benefited from the extra help. Working on the plane with 3 different groups of people was also a new experience. We had our individual project group of 3, but we also had to collaborate with our other classmates, and the other STEM period. We learned even more about teamwork, collaboration, and critical thinking this year.

Next year, students can take more time to learn how to read the plans and learn how to successfully use all the new tools. It would also be helpful to start working on the actual plane earlier because we only started building within the last week of first semester. The plans from the year before were unclear so we spent a fair amount of time looking through them and seeing where they left off. Students next year should detail their steps and progress and help out future classes to help the project start up again.

Overall, this project was very enjoyable and we loved being able to experience building an airplane. We will always remember this project and hope the plane eventually gets into the air. The whole group loved the hands on experience and will remember this project and the STEM program for many years to come.