

CYSF Logbook

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Grade: 8

School: Renert School

September 13, 2024

- **Action:** Brainstormed project ideas, deciding to focus on solar panels, specifically their creative and aesthetic integration.
- **Resources Used:** Personal notes, brainstorming worksheets, online research.
- **Other Notes:** Narrowed the topic to improving solar panel efficiency and appearance.

September 20, 2024

- **Action:** Started creating a presentation on Canva.
- **Resources Used:** Canva.
- **Other Notes:** Chose a visually appealing template and planned the structure.

September 27, 2024

- **Action:** Continued adding content on solar panel efficiency to the presentation.
- **Resources Used:** Canva.
- **Other Notes:** Focused on background research and the importance of solar energy.

October 4, 2024

- **Action:** Refined and expanded the presentation.
- **Resources Used:** Canva, online sources for data and images.
- **Other Notes:** 80% complete; planned to finish next week and start a model.

October 11, 2024

- **Action:** Completed the presentation and began working on a cardboard model.
- **Resources Used:** Science Buddies, Canva, SlidesCarnival.
- **Other Notes:** Gathered materials and found sunflower images for inspiration.

October 18, 2024

- **Action:** Built a cardboard model of the solar panel flower.
- **Resources Used:** Cardboard, markers, scissors, tape, glue, pipe cleaners, paper.
- **Other Notes:** Finalized design and structure.

October 21-24, 2024

- **Action:** Reviewed and polished the presentation and model.
- **Resources Used:** Canva, cardboard model.
- **Other Notes:** Ensured all elements were ready for presentation.

October 25, 2024

- **Action:** Presented the project on Pitch Day.
- **Resources Used:** Cardboard model, Canva presentation.
- **Other Notes:** The presentation went well; judges were interested.

October 30, 2024

- **Action:** Accepted to CYSF! Began deeper research on solar panels.
- **Resources Used:** Online articles from Aurora Solar, GreenMatch.
- **Other Notes:** Excited to expand the project and improve the model.

November 1, 2024

- **Action:** Conducted further research on solar panels.
- **Resources Used:** Online research.
- **Other Notes:** Found useful data on solar energy conversion.

November 22, 2024

- **Action:** Started designing a new model.
- **Resources Used:** Pen, paper, measuring stick.
- **Other Notes:** Sketched improved structure ideas.

November 25, 2024

- **Action:** Created a project timeline and finalized the sketch.
- **Resources Used:** Google Sheets, pen, paper.
- **Other Notes:** Planned key steps for building the improved model.

December 6, 2024

- **Action:** Measured dimensions for the sketch.
- **Resources Used:** Paper, pencil.
- **Other Notes:** Finalized proportions for the model.

December 8, 2024

- **Action:** Researched solar panels on Amazon and refined questions for solar companies.
- **Resources Used:** Amazon, Google Docs.
- **Other Notes:** Found potential solar panels for the project.

December 13, 2024

- **Action:** Researched solar companies and contacted them.
- **Resources Used:** Solar YYC, Zero Renewables, EVOLVsolar, SkyFire Energy, KCP Energy.
- **Other Notes:** Spoke with Alex from Solar YYC.

December 20, 2024

- **Action:** Continued solar panel research and updated logbook.
- **Resources Used:** Amazon.
- **Other Notes:** Met Rishi, a past CYSF participant with a solar project.

December 27, 2024

- **Action:** Researched motors for the project.
- **Resources Used:** YouTube, Google.
- **Other Notes:** Comparing different motor types.

January 2, 2025

- **Action:** Researched stepper and servo motors for sun-tracking.
- **Resources Used:** YouTube, personal research.
- **Other Notes:** Decided between stepper and servo motors.

January 8, 2025

- **Action:** Created a supplies list and selected a servo motor.
- **Resources Used:** Amazon.
- **Other Notes:** Finalized motor choice.

January 14, 2025

- **Action:** Finalized material list.
- **Resources Used:** Google Docs, Hackaday robot sunflower project.
- **Other Notes:** Ensured all required materials were listed.

January 23-24, 2025

- **Action:** Met with mentor and started assembling the model.

- **Resources Used:** Arduino, computer.
- **Other Notes:** Reviewed materials and project scope.

February 6, 2025

- **Action:** Conducted more research on solar panels.
- **Resources Used:** YouTube, personal research.
- **Other Notes:** Gained deeper insights into efficiency.

February 7, 2025

- **Action:** Ordered solar panels and began assembly.
- **Resources Used:** Amazon, glue gun, popsicle sticks, pre-made motor.
- **Other Notes:** Completed wiring and discussed next steps.

February 13-14, 2025

- **Action:** Sketched final model and met with mentors.
- **Resources Used:** Chrome drawing app, Arduino app.
- **Other Notes:** Adjusted design; solar panels arrived.

February 18-24, 2025

- **Action:** Continued research and trifold preparation.
- **Resources Used:** Wikipedia, YouTube, ACS.org.
- **Other Notes:** Compiled key data for display board.

February 28, 2025

- **Action:** Presented findings to mentor.
- **Resources Used:** U.S. Department of Energy website.
- **Other Notes:** Received feedback for improvements.

March 3-10, 2025

- **Action:** Finalized research paper and trifold.
- **Resources Used:** Google Docs, Canva.
- **Other Notes:** Organized findings for submission.

March 15, 2025

- **Action:** Visited a solar panel factory and gathered valuable information.
- **Resources Used:** Elevance Renewables.
- **Other Notes:** Answered key project questions.

March 16-17, 2025

- **Action:** Finalized research paper and slideshow.
- **Resources Used:** Canva, Google Docs.
- **Other Notes:** Submitted materials for review.