2023-2024 CYSF

Piezoelectricity

Mika & Chloe (Grade 7)

William D. Pratt School

Logbook

Nov. 30 12:15 p.m. - Got Science Fair Planning Sheet approved by Mr. Hagen and decided to not meet this weekend with each other

Dec. 1 12:10 p.m.- Decided to talk to Mr. Hagen about borrowing a voltmeter and quartz(if possible) from the school

Dec. 7 12:10 p.m.- Talked to Mr. Hagen about borrowing a voltmeter and quartz from the school

Dec. 7 12:15 p.m. - Started slideshow (slides 1-3)

Dec. 8 10:15 a.m. - Continued slides 1,2, and 4

Dec. 11 12:09 p.m.- Continued slide 3, 4, 5

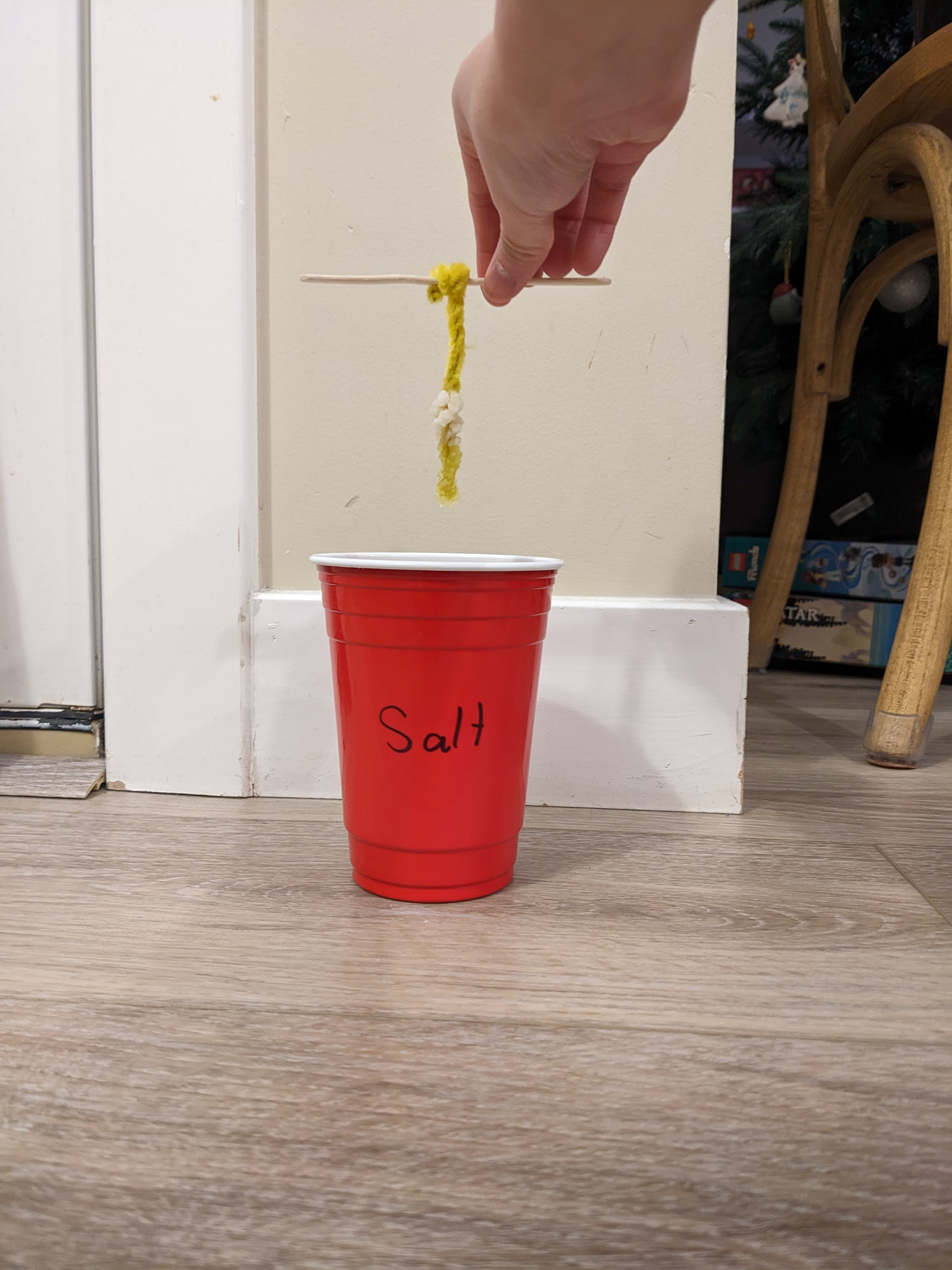
Dec. 14 12:10 p.m.- Continued slide 3

Dec. 21 12:15 p.m.- Continued slide 3 and 5

Jan. 1 9:18 p.m.- Continued slide 4 and 5, added slides 6, 7, 8, 9, and 10, looked over entire slideshow with Chloe’s parents

Jan. 4 2:01 p.m. - Double checked ingredients for crystals, prepared to make crystals. Edited slides 11, 4

Jan. 4 - Jan. 11 - Grew and documented crystals



| Weight of Crystals | Weight of Crystals | Weight of Crystals | Weight of Crystals |
| --- | --- | --- | --- |
| 3 g | 2 g | 78 g | 0 g |

Jan. 8 8:38 p.m. - Edited slide 5

Jan. 9 8:18 p.m. - Edited slide 5

Jan. 11 12:13 p.m. - Edited whole slideshow

Jan. 18 12:15 p.m. - Talked to Mr. Hagen to get registered on to the CYSF website

Jan. 25 12:15 p.m. - Started the CYSF registration form

Jan. 27 2:43 p.m. - Edited slide 5,3, added new slide 4

Jan. 28 9:50 a.m. - Worked on CYSF website

Feb. 1 12:10 p.m. - Worked on the CYSF website

Feb. 1 7:38 p.m. - Edited slideshow

Feb. 2 2:03 p.m. - Edited slideshow

Feb. 2 6:53 p.m. - Edited slideshow(again), grammatically checked hypothesis

Feb. 3 1:13 p.m. - Got voltage for the rest of the crystals, took pictures of the crystals

Low power

| **Type of Crystal** | **Trial 1** | **Trial 2** | **Trial 3** | **Trial 4** | **Average** |
| --- | --- | --- | --- | --- | --- |
| Baking Soda | n/a | n/a | n/a | n/a | n/a |
| Epsom Salt | 2.6 | 2.7 | 2.9 | 3.1 | 2.825 |
| Quartz 1 | 3.3 | 4.2 | 3.6 | 3.9 | 3.750 |
| Quartz 2 | 1.9 | 2.3 | 1.9 | 2.2 | 2.075 |
| Quartz 3 | 2.0 | 2.1 | 2.4 | 2.0 | 2.125 |
| Salt | 4.6 | 5.1 | 4.2 | 4.2 | 4.525 |
| Sugar | 2.8 | 2.0 | 3.2 | 2.6 | 2.650 |

High Power

| **Type of Crystal** | **Trial 1** | **Trial 2** | **Trial 3** | **Trial 4** | **Average** |
| --- | --- | --- | --- | --- | --- |
| Baking Soda | n/a | n/a | n/a | n/a | n/a |
| Epsom Salt | n/a | n/a | n/a | n/a | n/a |
| Quartz 1 | 11.3 | 10.8 | 10.9 | 10.4 | 10.850 |
| Quartz 2 | 7.8 | 7.4 | 6.7 | 9.6 | 7.875 |
| Quartz 3 | 8.6 | 9.8 | 8.9 | 10.7 | 9.775 |
| Salt | n/a | n/a | n/a | n/a | n/a |
| Sugar | n/a | n/a | n/a | n/a | n/a |

| No crystals formed |  |  |  |
| --- | --- | --- | --- |
| **Baking Soda** | **Epsom Salt**  Smooth/Clear/Brittle | **Salt**  Smooth/Cloudy/Brittle | **Sugar**  Rough/Clear/Brittle |
|  | | |  |
| **Quartz 1**  Smooth/Cloudy/Strong | **Quartz 2**  Smooth/Clear/Strong | **Quartz 3**  Smooth/Semi-Cloudy/  Strong |  |

Feb. 3 4:02 p.m. - Made graph

Feb. 15 11:20 a.m. - Worked on entire slideshow

Mar. 2 8:25 a.m. - Worked on slides 3, 19, 10, 4, 23

Mar. 3 1:11 p.m. - Edited entire slideshow

Mar. 3 4:35 p.m. - Worked on CYSF website, worked more on slideshow

Mar. 4 4:02 p.m. - Worked on slideshow

Mar. 5 6:48 p.m. - Worked on trifold layout and slideshow wording/grammar

Mar. 5 8:35 p.m. - Worked on trifold layout

Mar. 8 7:11 p.m. - Edited slideshow

Mar. 9 8:57 a.m. - Continued editing slideshow

Mar. 9 4:25 p.m. - Continued editing slideshow, worked on CYSF website

Mar. 10 8:58 a.m. - Did last edits for slideshow

Mar. 10 (Mario day) 11:52 a.m. - Printed out slide

Mar. 10 1:07 p.m. - Finished trifold

Mar. 10 9:40 p.m. - Edited CYSF website, printed logbook

Mar. 11 2:45 p.m. - WDP science fair

Mar. 12 8:54 p.m. - Practiced presenting, edited last mistakes on slide 12

Mar. 14 7:24 p.m. - Double checked CYSF website