Naomi M. and Lauren R.
Branton school
Grade 7

# Log Book 1

Project Log Book

## By: Lauren & Naomi

**What Goes Up Must come Down**
**2024-2025 November - March**

Log Book 1 nov 21st 2024
Today we came to our first meeting and looked at different ideas and what we wanted to do. Over the weekend we looked through different ideas. We also joined the google classroom and filled out the interested form. Later we hope to finalize our idea next week, but we know that we want to help the environment and an invitation project.

Log Book 2 nov 25th 2024
In science class we were studying the effect of humans in the ecosystem. We watched a video about what can happen to a plastic bottle. One of the bottles had a very sad story and went to a garbage island. We asked the teacher if there was a way to clean it up. She said that there were but that the pollution was quicker than the cleaning up. We were inspired to create a quicker, better way. We continued researching and were surprised when we found out that there were multiple and that The Great American Garbage Island is close to us.

Log Book 3 nov 28th 2024
Today we worked on planning and research and we also finalized our idea. Our questions were…

1) What present of the island are recyclable = 92% is plastic
2) What scale do we need it to be
3) American Trash Island was more than twice the size of Texas. We wanted to help the environment and decided to do a science fair project on it.
4) How many solar panels
5) How far away from shore
6) Will ruff water affect it
7) Co2 production

Our goal for next week is to finish our planning and work on the step we need to finish our project

Log Book 4 dec 12th 2024
Today we decided to change our idea to… a biodegradable balloon since lots of cows eat them when they are let into space then pop and land in fields. We will be creating 3 balloons. We will let one off into space

with an air tag to track it in January and test the temperature. And we'll let go of one in March to see when it pops depending on the temperature.

The other we will keep for the science fair for our project. Our goal for this project is to show people where balloons go when you let go of them. Normally when you let go of the balloon you don't think about where it goes. We are going to create a biofriendly balloon and raise awareness for the cows by tracking a balloon with an air tag. Also when a cow eats a balloon the micro plastics stay in them and end up in our food. So you could be poisoning yourself. Our goal for next time is to gather more information and finish our ruff draft plan.

## Compostable vs degradable and biodegradable bags

Questions for next time…

- ☑ ~~What are compostable bags made of?~~

are made of natural plant starch, and do not produce any toxic material

- ☑ ~~How do you make a balloon ?~~

https://www.youtube.com/watch?v=1YpdlmKVLkc&lc=UgzJNRUiSrjcWGl904V4AaABAg

- ☑ ~~How many balloons are released and made each year?~~

up to 3 billion are made

- ☑ ~~How many are released into the atmosphere?~~

the ocean conservator found 1.3 million balloons

- ☑ ~~How many trees does it take to make a latex balloon?~~

100 000 animals dies from plastic each year

Raw Materials: 97.32 percent of Rubber balloon comprises Ammonia reduced Latex. Casein, Potassium hydroxide, Sulphur, Zinc oxide, colour pigments and chemicals like vulcanax SP, Vulkacit LDA forms the remaining 2.68 percent of raw materials.

- ☐ How do you attach an air tag to a balloon?

Tape it to the outside

- ☑ ~~When a cow eats bioplastic does it come out in its milk?~~

It affects the quality and quantity of its milk

- ☑ ~~Do they affect turtles/dolphins/ocean animals?~~

yes

- ☑ ~~Where do they go most commonly?~~

The ocean

Log Book 5 Jan 9th 2025

Today we looked and answered questions from last month also look and what time we will release the balloon

- ☐ Look for balloon making kit They sell biodegradable balloons so we can try to find a place that sells them and test if they are actually biodegradable

Only problem is: *It sounds great to highlight that biodegradable latex balloons decompose at the same rate as a leaf. However, that doesn't highlight the fact that this process could take more than 6 months, depending on the conditions.* https://greencitizen.com/blog/biodegradable-balloons/

- ☐ Need to release soon

Next couple weeks out of school

- ☑ ~~Test biodegradability in biodegradable balloons~~

In someone's yard

Log Book 6  Jan 16th 2025

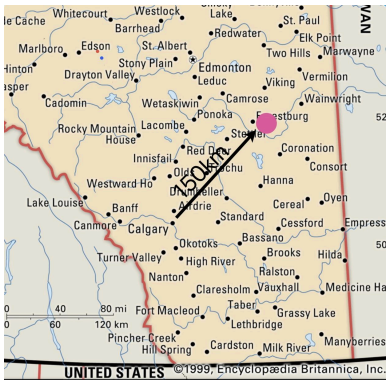
Today we are making a timeline of when we need to do stuff

We have already done

- Think of an Idea
- Fill out Interest Form
- Plan Project
- Research about people letting go of balloons
- Research about what it does to the atmosphere
- Research about biodegradable balloons

What we need to do

- Fill out CYSF forms
- Buy a biodegradable balloon
- Put the experiment together including filling it up with helium and attaching the airt ag
- Launch the balloon
- Track the balloon
- Write down the data
- Research and Think about what it might do to the environment
- Get the stuff ready for the CYSF
- Go to the CYSF




Is the balloon traveled 45 degrees and 150 km for 10 hours

Log Book 7 Feb 6th 2025

Today we started to fill out forms and paragraphs needed for the science fair on the CYSF platform. We will need to add more information and spell and grammar check the paragraphs also and pictures to the research part. Next time we should look at different projects from last year and compare our project to them to see what we can improve. We can also look at the brushes on canva to start to add information to them. Also we started to figure out how to do the calculations.

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Log Book 8 Feb 20th 2025

Today we worked on the Problem, Method and Research. We changed our plan and will nor be releasing a balloon but will be doing it theodicy . We will measure things and will do calculations to see where it will end up as well as determining what animals the balloon can hurt. Here is our checklist:

Log book 9 Feb 27th 2025

This WEEK

- ☑ ~~Continue to add to research~~
- ☑ ~~Grammar check finish up method~~
- ☑ ~~Method needs grammar check~~
- ☑ ~~Same for problem~~
- ☑ ~~Add calculations to method~~

This week we worked on completing more of the online form we needed to fill out since we only have three more classes. We finished the method and problem and next week we hope to add lots more to research. We will work on the online platform a bit at home to add to it so we can finish it before March 21st.

Log book 10 March 6 2025

We planned out what we would do and also worked on the online platform. We hope to finish it soon. We have 14 days as of now to finish it and turn it in. Over the weekend we will work on it and try to finish it. Als we added information for the calculation on the platform.

THE NEXT WEEK

- ☑ ~~Continue to add to research~~
- ☑ ~~Add citations~~
- ☑ ~~Information for the calculations~~

# Wind calculations

| Date | Feb 27 | March 28 | March 1 | March 2 | March 3 | March 4 |
|---|---|---|---|---|---|---|
| Place | Calgary | Calgary | Calgary | Calgary | Calgary | Calgary |
| Speed | 49 km/h | 32 km/h | 31 km/h | 44 km/h | 31 km/h | 36 km/h |

| | | | | | | |
|---|---|---|---|---|---|---|
| Direction | 280 | 100 | 150 | 20 | 50 | 170 |
| | | | | | | |

| | | |
|---|---|---|
| Date | Feb 28 | |
| place | Holland rock | |
| Direction | 10 | |
| Speed | 11km/h | |

| Type of balloon | 12” latex (Most Common) | 24” latex | 24” confetti latex | 12” confetti latex |
|---|---|---|---|---|
| Time it stays up | 1 day* | 2-3 days* | 2 days* | 14 hours* |
| Grams of plastic | 8 grams | 18-20 grams | 20-24 grams | 10 grams |


THE NEXT WEEK

- ☑ ~~Do the calculations~~
- ☑ ~~Do Conclusion~~
- ☑ ~~Finish all other things ex. Data, concussion~~
- ☑ ~~Write notes on data~~
- ☑ ~~Add data to CYSF website~~

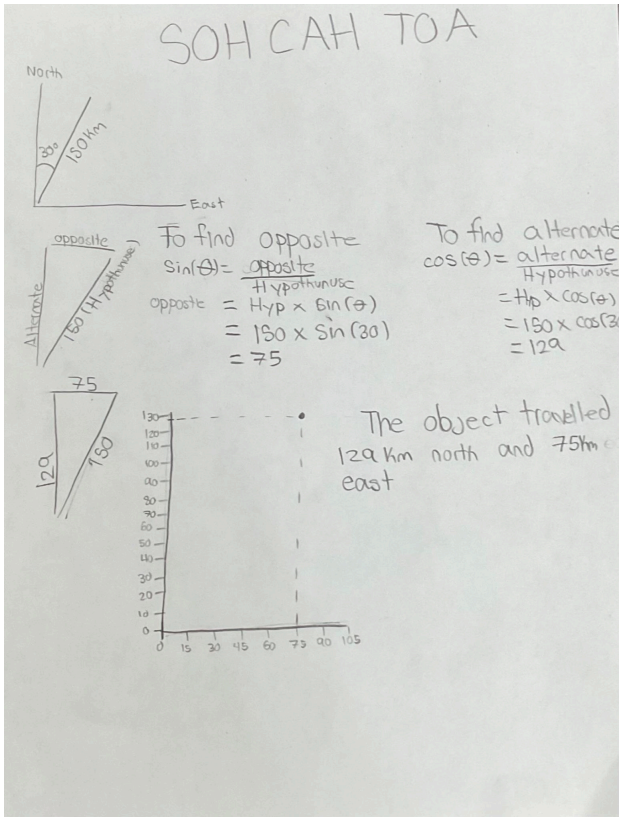
THE NEXT WEEK

- ☑ ~~Finish organizing the data~~
- ☑ ~~Finish filling out stuff~~
- ☐ Submit what we have
- ☑ ~~Continue to add research~~

**Log Book 11** Mar 7, 2025

Today we added to research and did the calculations for where the balloons would end up.
Here is some research we did:

- Safety of releasing balloons and why some states in the US don't allow balloons to be released
- Biodegradable balloons and why they are still bad for the environment




This is an example of the SOH CAH TOA method to find the amount distance travelled
Here is a list of stuff we still need to do for research

- ☑ ~~What happens if the balloons end up in the mountains and the effects on the environment~~
- ☑ ~~What happens if the balloons end up in fields and the effects on the environment (also how the cows eating them affects us as humans)~~
- ☑ ~~Other alternatives to releasing balloons~~
- ☑ ~~Why balloons pop and how that works~~
- ☑ ~~Why balloons go up and the chemistry behind it~~
- ☑ ~~Other calculation research and numbers/other stuff for planning calculations~~
- ☑ ~~Grammar check~~

**Log Book 12** Mar 8, 2025

Today I added to the research. I checked the boxes from the last log book.

**Log Book 13** Mar 9, 2025

Today I finished the research. I checked the things above that I did today. We plan to go over it and make sure we've added everything, as well as do a grammar check. Lauren also is almost done with the calculations and is going to check to make sure it's all right and there are no mistakes. We will need to submit our work for the science fair soon.

List for Stuff to Do Before Submitting

- ☑ ~~*Fix Method*~~
- ☑ ~~*Finish Data (Grammar Check)*~~
- ☑ ~~Finish Research~~
- ☑ ~~Check Over Citations~~
- ☑ ~~**Do Conclusion**~~
- ☑ ~~Do Acknowledgements~~
- ☑ ~~**Other Grammar Checks**~~
- ☑ ~~***Any Other Stuff***~~
- ☑ ~~**Copy Research, Problem, Method, Data, Conclusion, Citations, Acknowledgements and Images into a Google Docs**~~
- ☑ ~~Log Book (Last Page From Checklist) and More Images into the Google Docs - Naomi~~
- ☑ ~~Finish Up Log Book - Naomi~~
- ☑ ~~Add Attachments (Log Book) - Lauren~~
- ☑ ~~Finish Presentation (Participant Photo) - Lauren~~
- ☑ ~~Do Declarations - Lauren~~
- ☑ ~~Submit to CYSF - Together (Don't know how)~~

Last Day - Red
*Lauren Do At Home - Italicized*
**Naomi Do At Home - Bold**
Second Last Day - Blue

Log Book 14 Mar 13, 2025

Today we continued to work on the online platform. We checked the stuff above. We will also work at home over the weekend adding more stuff.

Log Book 15 Mar 20, 2025

Today we finished everything up and submitted it to the science fair online platform. We are looking forward to starting on our trifold.

Also that is the end of our project log book (Log Book 1) but we will make a trifold log book once we get started working on it.