Project Logbook

Whether you are a research scientist or a first time science fair student, a logbook is a crucial part of any project. It is a detailed account of every phase of your project, from the initial brainstorming to the final research report. The logbook is proof that certain activities occurred at specific times. Journals and logbooks are subject to scrutiny by the scientific community and are acceptable evidence in a court of law.

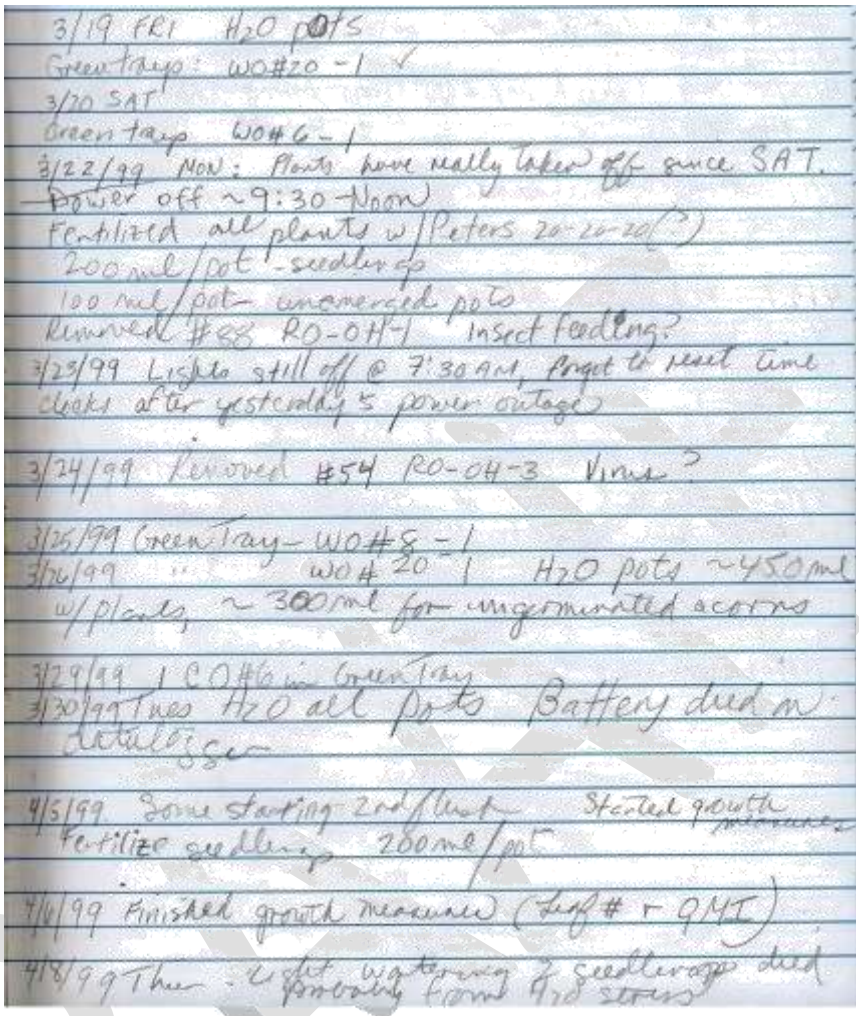
Here are a few pointers that are easy to follow. Practice these suggestions everyday. They should help keep you organized, and certainly will impress any science fair judge. It's a great opportunity to show off all of your hard work!

1. **Create a notebook by using the papers bound together**, typically by using the one provided at the bottom. You can use a spiral bound papers or better do a hard binding. Beware of loose papers, as they are a disaster waiting to happen.

2. **Label your logbook** with your name, phone number, email address, and teacher's name in a prominent location. Make logbook entries in pen not in pencil. This is a permanent record of all of your activities associated with your project.

3. **Number the pages in your logbook before using it**, unless already numbered for you.

4. **Always date every entry**, just like a journal. Entries should be brief and concise. Full sentences are not required.



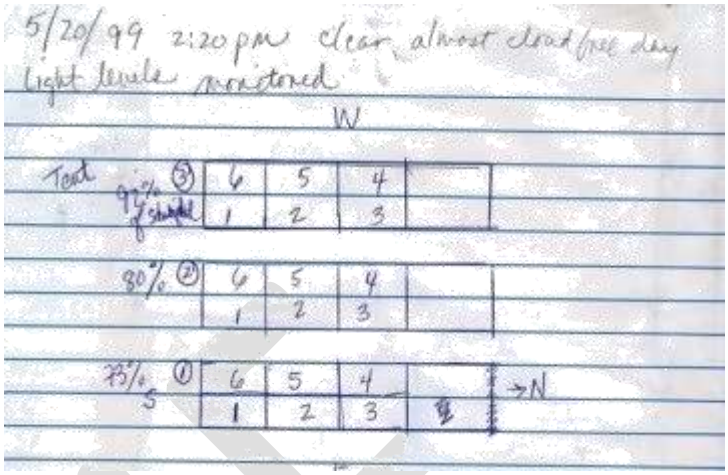
Logbook entry of observations made while watering planted oak acorns in greenhouse

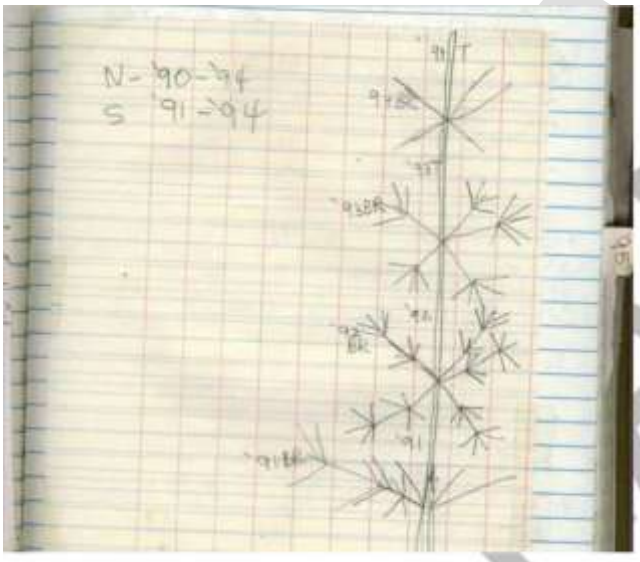
5. **Don't worry about neatness**. It's a personal record of your work. Do not re-do your logbook because it looks sloppy. Think of the logbook as your "Dear Diary" for science fair. It's not just for recording data during the experimental phase of your project and it's not just for your teacher.

6. **It should be used during all phases of your project**, jotting down ideas or thoughts for a project, phone numbers, contacts or sources and prices of supplies, book references, diagrams, graphs, figures,

Sketch of

charts,
sketches, or calculations.
layout of sample points inside shade tents





Log entries should include your brainstorming, calculations, library/internet searches, phone calls, interviews, meetings with mentors or advisors, notes from tours of laboratories, research facilities and other related activities.

Remember that it's documentation of your work. Hand drawing showing different ages of tree branches that were sampled during an experiment.

7. Use it regularly and write down everything, even if it seems insignificant, it could later be extremely useful.

For example, it's the middle of the night and you're frantically preparing that final report but you can't find the title of that crucial reference. Make sure that you describe things completely, so that when you read your notes weeks or months later you will be able to accurately reconstruct your thoughts and your work.

8. **Glue, staple or tape any loose papers**, photocopies of important items. Loose papers or other unsecured items are prohibited as they tend to fall out and can end up missing.

9. **Organize your logbook**. Make a table of contents, index, and create tabs for different sections within your logbook.

Table of Contents	Tab colour	Page #
Deadline Schedule	Red	1
Daily Notes & Reflections	White	2
Background Research Library & Internet	Blue	20
Information Contacts, Supply sources	Green	26
Experimental Setup	Yellow	35
Data collection	Purple	40

Results (pictures, graphs, summary tables)	Orange	50
Reflections	Light blue	60

This helps keep you organized for different activities. For example, have a data collection section, a section with contacts, sources, etc. and a section of schedule deadlines.

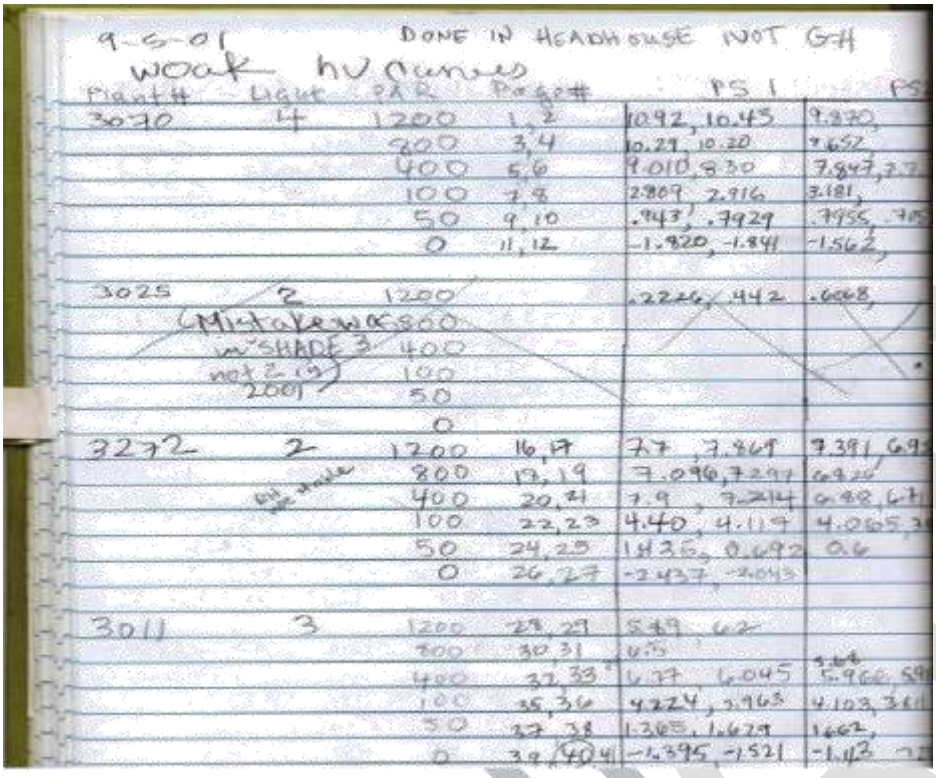
10. **Include a reflections section in your logbook.** For example, what, if anything would I do differently next time? What part of the experiment could be changed to improve the experimental procedure?

11. **Always include any changes made to procedures**, mishaps, failures, or mistakes. As human beings, all of us make mistakes!

1/4/05 my cat, Sheba scratched the pots of soil, and ate 4 of my 12 plants. I will have to replant everything! I need to protect plants from the silly cat. Maybe i should try putting a screen around the pots or keep cat outside!

2/5/05 Disaster in the lab this morning. Setup manure digoestors last night in incubators, temperature was set at 25°C but came into a real mess, samples heated up too much and caps blew off. I will need to try a lower temperature to avoid this accident from happening again!!!! HUGE MESS TO CLEAN UP.....

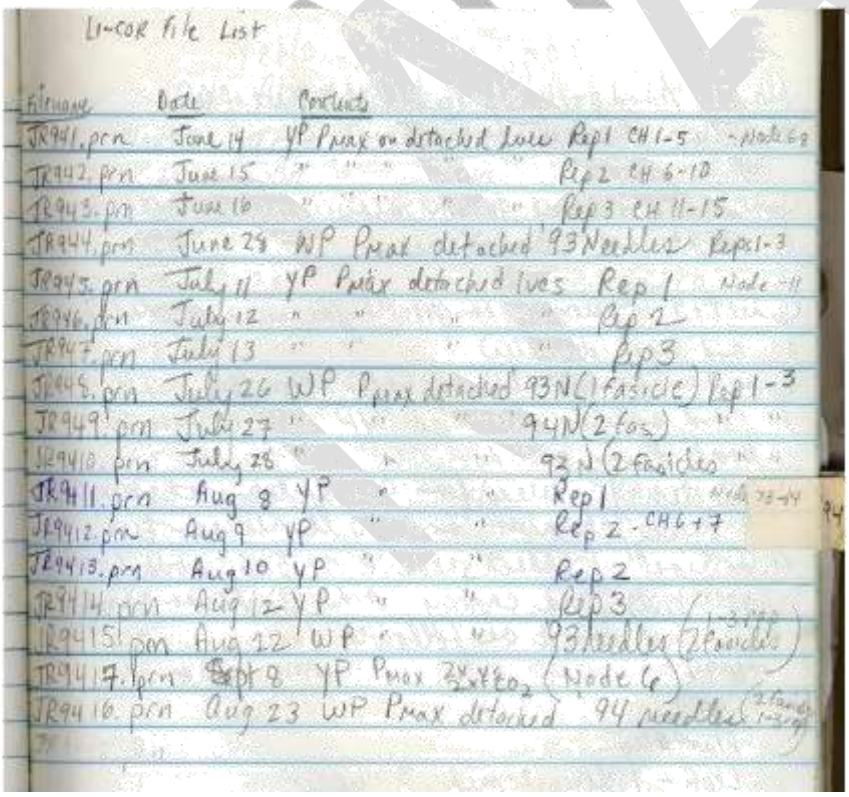
12. **Include any and all observations made during your experiment.** In other words, record ALL data directly in your logbook. If that is not possible, then staple photocopies of data in the logbook.



9-5-01 DONE IN HEADHOUSE NOT GH

Weak hv curves

Plant #	Light	PAR	Page #	PS 1	PS
3070	4	1200	1,2	10.92, 10.45	9.930,
		800	3,4	10.29, 10.20	9.652,
		400	5,6	9.010, 8.30	7.847, 7.2
		100	7,8	2.809, 2.916	3.181,
		50	9,10	.943, .7929	.7955, .705
		0	11,12	-1.920, -1.841	-1.562,
3025	2	1200		.2226, .442	.6068,
(Mistake was SHADE 3 not 2 (3) 2001)		800			
		400			
		100			
		50			
		0			
3272	2	1200	16,17	7.7, 7.969	7.391, 69
		800	18,19	7.096, 7.297	6.926
		400	20,21	7.9, 7.214	6.88, 6.7
		100	22,23	4.40, 4.119	4.065, 3
		50	24,25	1.435, 0.692	0.6
		0	26,27	-2.437, -2.043	
3011	3	1200	29,29	5.89, 6.2	
		800	30,31	6.5	
		400	32,33	6.37, 6.045	5.966, 5.9
		100	35,36	4.224, 3.963	4.103, 3.6
		50	37,38	1.365, 1.629	1.662,
		0	39,40	-1.395, -1.521	-1.43



Li-COR file List

Filename	Date	Contents
JR941.prn	June 14	YP Pmax on detached Lves Rep1 CH1-5 - Node 6
JR942.prn	June 15	" " " " Rep2 CH 6-10
JR943.prn	June 16	" " " " Rep3 CH 11-15
JR944.prn	June 25	WP Pmax detached 93Needles Rep1-3
JR945.prn	July 11	YP Pmax detached lves Rep1 Node 11
JR946.prn	July 12	" " " " Rep2
JR947.prn	July 13	" " " " Rep3
JR948.prn	July 26	WP Pmax detached 93N(1 fascicle) Rep1-3
JR949.prn	July 27	" " " 94N(2 fas) " "
JR9410.prn	July 28	" " " 93N(2 fascicles) " "
JR9411.prn	Aug 8	YP " " Rep1
JR9412.prn	Aug 9	YP " " Rep2. CH6+7
JR9413.prn	Aug 10	YP " " Rep2
JR9414.prn	Aug 12	YP " " Rep3
JR9415.prn	Aug 12	WP " " 93Needles (2 Fascicles)
JR9417.prn	Sept 8	YP Pmax 2%xEo2 (Node 6)
JR9416.prn	Aug 23	WP Pmax detached 94 needles (2 fascicles)

Remember, keeping up a great logbook throughout the entire duration of the science project really pays off later! Not only will a nicely maintained logbook impress your teacher and the judges at the fair, it will also help you stay out of trouble later when you need to look back and provide details of what you did.

- Thanks to "**Joanne Rebbeck", Ph.D. via www.sciencebuddies.org.**

Note: Prepare your own logbook based on the above procedure which will help you to complete your project successfully. **And the teams should provide their logbook which mentions their everyday work and time schedules throughout the completion of the project! The logbook must be filled with the papers containing Robotzindia/RAAIF watermark. Teams without logbook details will not be entertained in the presentation scenario. Papers used for the log book is available as a "sample page" check below**