



## STUDENT PROCESS and REPORT RECORD

PROCESS (record what you do in each step in your Log Book)	Date	Student	Teacher	Mentor	REPORT	Date	Student	Teacher	Mentor
1. Start a log book.									
2. Find out and record the class theme.									
3. Pick a topic area that you find interesting and brainstorm some questions or problems that you can test scientifically. Come up with a <b>WORKING TITLE</b> for your project.					<b>INTRODUCTION</b> Explain what you were trying to do and why you thought that was important. Describe what others have done in this area before.				
4. Find and <u>write in your own words</u> information about the topic from books, the internet and others.									
5. Identify a <u>question or problem</u> to investigate. Propose an answer to your question or a solution to your problem and discuss with your mentor. Be able to describe what you will do (which variable will be changed, which variable will be measured, which variables will be kept the same (Cows Moo Softly) so that you can carry out a <u>fair test of your proposed answer or proposed solution</u> ).					<b>QUESTION/PROBLEM</b> <u>Outline the question/problem that you were trying to answer.</u> <u>State the answer or solution that you proposed.</u> Describe how you set up a Fair Test, ie identify what you changed, what you measured and what you kept the same.				
6. Clearly state your investigation as a question: <ul style="list-style-type: none"> <li>What is the effect of <i>what you will change</i> on <i>what you will measure</i>?</li> </ul>									
7. Design the tests you will need to carry out to answer your question. Decide how to keep everything the same except what will be changed and measured. Make sure that what you are measuring is being caused by what you are changing.					<b>METHOD</b> Describe how you tested and say why you carried out the tests that way. [Consider using a procedural recount with steps.] Use diagrams and drawings where possible.				
8. Make a specific prediction about what may happen using... <ul style="list-style-type: none"> <li>When the changed factor does _____, then the measured factor will _____.</li> </ul>					<b>PREDICTION/HYPOTHESIS</b> Clearly and simply describe your prediction/hypothesis				
9. Explain the reasoning for your prediction using science knowledge.									



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10. Identify and collect all necessary equipment based on the test you have designed.					<b>EQUIPMENT/MATERIALS</b> List all equipment and materials used to carry out the tests.				
11. Carry out your tests. Collect and record information. <ul style="list-style-type: none"> <li>Make sure that you have enough measurements to be able to show that <i>what you change</i> causes <i>what you measure</i>, for the situation you are investigating.</li> </ul>									
12. Present the results clearly. Use tables, drawings or photos, as appropriate.					<b>RESULTS</b> Record your results using descriptions, tables, images and drawings.				
13. Look for patterns in the results. Putting your results into graphs where possible will help. Identify and explain any results that do not fit.					<b>DISCUSSION AND CONCLUSION</b> <b>Analysis of results</b> - use graphs where appropriate. Identify and discuss trends and patterns. Comment on unexpected results. <b>Conclusion</b> - Describe how well your results support your prediction/hypothesis. Provide an explanation using your science knowledge. Describe how your findings may benefit others. <b>Evaluation</b> - Suggest ways to improve the design of your experiment/s. <b>Future investigations</b> - Describe a logical follow-up investigation.				
14. Write a conclusion, which should say how well your results support your proposed answer or solution. Use your science knowledge from Step 4 to help explain your conclusion.									
15. Evaluate the investigation - what worked, what didn't, what would you change another time?									
16. Write a Scientific REPORT that presents your findings to others.									
					<b>FINAL TITLE</b> - Create a title that fits your audience.				
					<b>ACKNOWLEDGEMENTS</b> - People who helped you.				
					<b>Bibliography</b> - List the sources of information that you used.				