

Process Analysis Writing: Expressing Your Understanding of a Process Rooftop Lab Project – Davidson Academy Blue Team

Where you are

To this point, you have taken painstaking notes while completing the Rooftop Lab in math. In addition, your math teacher has clearly defined and reviewed with you the exact process you are expected to write about in this assignment.

Where you want to be

Now, you must explain the entire process in writing to a specific audience and for a specific purpose. This one is a little more complex than just one audience and purpose, but you will see that they both require the same information, so we have combined them.

Audience and Purpose 1: Your teachers can clearly see that you understand the process and could do it on your own at any time.

Audience and Purpose 2: Another person could pick up your paper and recreate the exact steps and get the exact same results.

Write a brief focused summary of the exact process your math teacher has instructed you to write about here:

How to get there

1. Pre-write: use your observational notes and classroom learning to make sure you know your stuff down to the smallest detail. *If you know how, a [flow chart](#) is ideal for this.*

2. Organize your ideas using the **Rooftop Lab – Dimensional Analysis Paper Graphic Organizer**. ***You'll need your observational notes for this!***

3. Draft your paper, using your graphic organizer and observational notes.

4. Get peer readers to critique your paper to see if it does indeed express that you completely understand the process and have explained it clearly and accurately. Your classmates are the best choices since they have completed the same process!

5. Revise your paper as needed based on the advice of your peer readers.

6. Proofread for Mechanics, Usage, Grammar, and Spelling (MUGS). If you are weak in these areas, get someone who is good at them to help!

7. Polish the whole thing up in MLA style (DS, etc.) and **turn in**.

Helpful Hints

1. Use [transitions](#) – don't number steps and don't divide each step up by using headings – this is to be a coherent, flowing essay. You can, however, use headings to label “chunks” of information, such as “Background”, “Measuring”, “Conversions”.
2. Define any terms – remember, your teacher is using this to see if you understand, so make it clear that you do.
3. Give advice or special tips at any point where you had problems or found an effective way to do something.
4. Keep it simple as possible. Don't get bogged down in too much detail – but this is a tough, tough call! Try using some tables, charts, or illustrations show your math.
5. Try to keep it to five paragraphs by keeping logically related steps together in paragraphs. We do realize, however, that the number of paragraphs can and will vary according to each individual's writing style and ability.
6. Don't worry about writing who did what since that doesn't matter – in fact, try not to. Try to write in passive voice. Second person is acceptable though not as highly valued. You can write in active voice, though it also will not be quite as highly valued as passive. In any case, **be consistent!**

OTHER NOTES:

Measuring Your Success – Rooftop Lab Process Analysis Name: _____

Math Evaluation

	Score	Proficient	Competent	Needs Improvement
Unit/Dimensional Analysis including vocabulary, measurement, calculations, & conversion	_____ of 25	_____ true command of vocabulary _____ accurate measurements _____ flawless calculations & conversions	_____ uses mostly proper vocabulary _____ largely accurate measurements _____ largely accurate calculations & conversions	_____ lacks proper vocabulary _____ some inaccurate measurements _____ some inaccurate calculations & conversions
Use of problem solving processes including forming a hypothesis, testing it, & keeping detailed records of the process.	_____ of 15	Paper reflects strong planning and follow through, including an initial theory & detailed record of the testing of that theory – namely the measurements	Paper reflects some planning & follow through, including an initial theory & adequate record of the testing of that theory – namely the measurements	Paper reflects inadequate planning & follow through; initial theory &/or record of the testing of that theory is/are underdeveloped
Understanding of the purpose and usefulness of the process in everyday life applications.	_____ of 10	Introduction or conclusion reflects sophisticated understanding of applications.	Introduction or conclusion reflects expected understanding of applications.	Introduction or conclusion reflects little or no understanding of applications.
TOTAL for MATH	_____ of 50			

Measuring Your Success – Rooftop Lab Process Analysis Name: _____

English Evaluation

	Score	Proficient	Competent	Needs Improvement
Unity, Coherence, & Flow , especially effective transitions between & within paragraphs	_____ of 20	_____ strong unity overall with effective transitions between paragraphs _____ strong transitions within paragraphs	_____ acce unity overall with effective transitions between paragraphs _____ acceptable transitions within paragraphs	_____ lacks needed overall unity _____ lacks needed transitions between paragraphs _____ lacks needed transitions w/in paragraphs
MUGS & Voice	_____ of 15	_____ mechanics _____ usage _____ grammar _____ spelling _____ consistent voice	_____ mechanics _____ usage _____ grammar _____ spelling _____ consistent voice	_____ mechanics _____ usage _____ grammar _____ spelling _____ consistent voice
Use of Writing Process	_____ of 10	Paper reflects exceptional use of writing process. Notes, Graphic Organizer, Drafts, Peer Read all submitted properly.	Paper reflects good use of writing process. Notes, Graphic Organizer, Drafts, Peer Read all submitted properly.	Paper reflects inade use of writing process. Notes, Graphic Organizer, Drafts, Peer Read are not all submitted properly.
MLA Format	_____ of 5	Properly formatted	Properly formatted with only minor errors.	Significant errors in formatting.
TOTAL for ENGLISH	_____ of 50			

Peer Reading Guide for Process Analysis Paper – Writing Check

Author: _____

Peer Reader: _____

1. Does the introduction state the problem and the original hypothesis formed at the beginning of the activity?

_____ yes _____ no

2. Does the first body paragraph have an introductory transition? If so, what is it? If not, suggest one here.

3. Does the first body paragraph(s) clearly and accurately explain how to get the area of the wall? If yes, just say so. If no, explain what was done incorrectly.

4. Does the first body paragraph or section flow well or does it seem choppy to you?

_____ flows well _____ seems choppy

Explain how to improve it here:

5. Does the second body paragraph have an introductory transition? If so, what is it? If not, suggest one here.

6. Does the second body paragraph(s) clearly and accurately explain how subtract the windows and doors? If yes, just say so. If no, explain what was done incorrectly. Remember, even if the writer had no windows or doors, he/she must still explain how this would be done.

7. Does the second body paragraph or section flow well or does it seem choppy to you?

_____ flows well _____ seems choppy

Explain how to improve it here:

8. Does the third body paragraph have an introductory transition? If so, what is it? If not, suggest one here.

9. Does the third body paragraph(s) clearly and accurately explain how to convert the area to number of bricks? If yes, just say so. If no, explain what was done incorrectly.

10. Does the third body paragraph or section flow well or does it seem choppy to you?

_____ flows well _____ seems choppy

Explain how to improve it here:

11. Does the conclusion comment on the accuracy of the writer's initial hypothesis?

_____ yes _____ no

11. Does the conclusion adequately explain the importance and usefulness of dimensional analysis?

_____ yes _____ no

12. Now, comment on the paper itself with any suggestions or corrections you see fit.

Checking for Accuracy – Mathematical Check

Author _____

Peer Reader for mathematical check: _____

1. Does the author state which wall he/she is calculating the number of brick: _____

If not, make a note on rough draft that this must be included.

2. Do the dimensions of the walls given in the paper seem reasonable? For example, you know the height of the high walls is well above the height of a basketball rim, so no one should have a height around 10 ft.

3. Does the paper explain, without going into too much detail, how the area of the walls and windows are obtained? Even if the paper is on the short wall, does the author mention what would need to be done if the short wall had door or windows? If not, make a note on the rough draft that this must be included.

4. Check the paper for mathematical accuracy.

a) First look at the original Rooftop Notes Paper the author sketched the walls, wrote dimensions, and calculated the number of bricks.

Is there a sketch on the Rooftop Notes Paper? _____

If yes, does it include legible dimensions? _____

Are the calculations included? _____

a) Now look at the author's paper. Is the same mathematical information that is on the Rooftop Notes Paper included in paragraph form? _____

c) Are the conversions in the paper correct?

d) Does the final number of brick seem reasonable? Even if you had a different wall than the author is the final number of brick "in line" with the amount in your wall? If not explore why not and help the author with his or her conversions.