

Lab write up rubric

Here's the rubric for the lab write up. As you write your lab, keep these things in mind and also take a look at the information from our discussion in class on 6 Feb and the handout your peer reviewer will be using to review your paper. If you want to look at published journal articles or at the lab reports we had in class, those are all available in the seminar room or on Blackboard. Don't forget that you can get help with figuring out how to get your lab report put together correctly from the writing center, the quantitative skills center, or me. Please try to get your lab reports to your peer reviewer by Tuesday at the latest so that they can get you back your draft on Wednesday and you will have time to make corrections before the deadline Thursday.

When you turn in your lab, you will turn in a single PDF file to Blackboard that has your lab report (including cover letter), the letter from your reviewer, and your marked up first copy. You can turn word documents into PDF using "save as", using Adobe Acrobat on one of the lab computers on the 3rd floor, or using a free program online.

Your lab report is out of 25 points, as outlined below and on the back of this page:

	0 points	1 point	2 points	3 points
Identifies the objective (question and hypothesis) of the lab and the relevant geology concepts.	No mention is made of objective, and poor understanding of what concepts are relevant.	Attempt is made to present the objective. Discussion of relevant concepts is significantly lacking.	The objective and relevant geology concepts are discussed, but may be too vague or too detailed.	The objective is clearly stated and relevant geology concepts are clearly and concisely presented.
Data collection and analysis are appropriate and complete.	Data presented are not sufficient for satisfying the objective. Methods (field/experimental) and analysis are absent or difficult to follow.	There may be significant oversights or problems in either the presentation of the methods and data or the analysis.	Data are appropriate but description of experimental design/analysis may show some inconsistencies or oversights.	Data are appropriate and the analysis is complete. All key aspects are clearly presented.
Identifies assumptions and/or sources of uncertainty.	No attempt is made to identify uncertainties and/or assumptions.	An attempt is made to identify uncertainties and/or assumptions, but the discussion is vague or incorrect.	Most uncertainties and/or assumptions are identified, with perhaps some minor oversights or incorrect evaluation.	Uncertainties and/or assumptions are discussed completely and clearly thought out.

	0 points	1 point	2 points	3 points
Presents data in a meaningful way.	No tables and/or figures are included.	Tables and/or figures are included but are poorly laid out, inappropriate, or incomplete.	Tables and/or figures are included but may have minor omissions or require some effort to comprehend. Are not referenced directly in the text.	All important data are presented clearly on the tables and figures that are referenced in the text but are also understandable to an independent observer.
Evaluates the results in the context of lab objective.	No evaluation is made about how the results contribute to the overall objective.	An evaluation is made about the results found, but the discussion is incomplete or based on poor reasoning.	Evaluation and discussion is clear but may be insufficient in some areas.	A clear, complete evaluation of the results is made in the context of the objective.
Communicates the relevant ideas well.	Poorly written or serious errors. Needs significant work.	Reader has difficulty following the discussion due to poor presentation or errors. Frequent use of "weasel words": some, few, big, seems.	Well-written with a few minor errors or failure to be precise with language.	Well-written, easy to follow, complete.
Cover letter	Cover letter is absent or otherwise achieves 0 of the 3 items required for 3 points.	Achieves 1 of 3 items required for 3 points.	Achieves 2 of 3 items required for 3 points.	Letter summarizes your lab report, summarizes suggestions from and your response to reviewer comments, and reflects on your lab report writing.
Abstract	No abstract.	Abstract is too wordy or too brief or references things to follow in the lab rather than stating results.	Abstract is concise but covers the main points of the lab. Can stand alone.	
Length, formatting, etc.	Illegible, no headings, not typed, too long, or too short.	8-12 pages, double spaced. Typed. Legible. Headings are included.		
First draft	No first draft.	Complete first draft.		

Peer review guidelines and rubric

Here are some questions to think about when you are working on your peer reviews. Remember to think about the lab report in the context of the hierarchy of concerns. If there isn't a clear objective to the lab (question and hypothesis), then it doesn't matter what the grammar is like. A good way to edit/peer review papers is to read the entire thing once and not make any comments in the margins. Then try to answer questions 1-3 (below). Now go back and read it again and make comments in the margins/with track changes as you go. Finally, go through and look at your comments and figure out how to compile them into your letter to the writer. Be sure to make comments on the lab report itself, especially related to questions lower down on the list (numbers 6-11), and to include all your big-picture comments in your letter to the writer.

Out of courtesy to your lab partners, please try to turn around peer reviews within 24 hours.

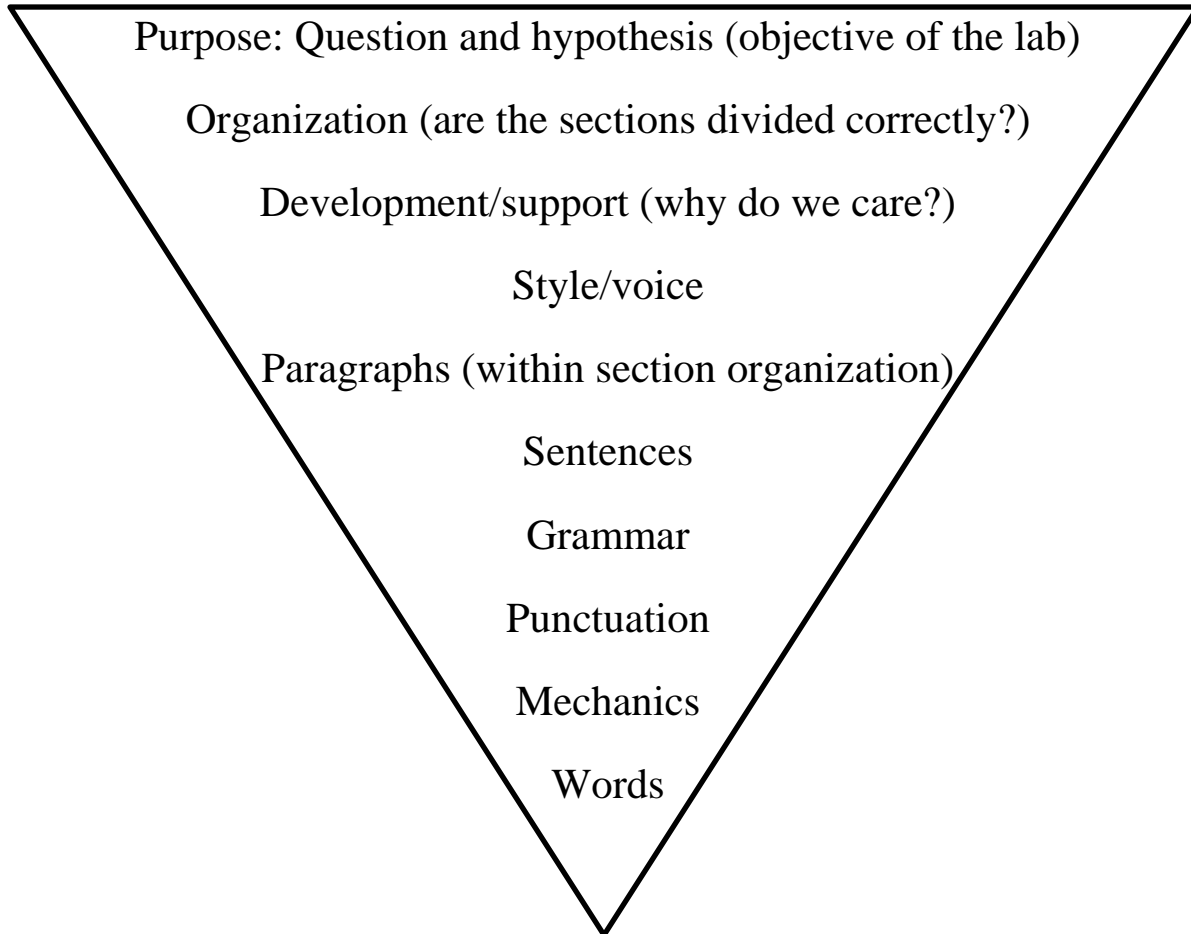
Questions to think about when peer editing

- 1) Can you tell from the lab report what question the writer is asking and what their hypothesis is (in other words, what is the objective of the lab)? If yes, what are your suggestions, if any, about changing where/how these are introduced? If no, what are your suggestions about how to fix that?
- 2) Does each section have the appropriate content in it? What suggestions do you have on improving the division of sections?
- 3) Do you know why this is any important question? Why should we care about this lab report? What suggestions do you have on how to improve/fix that part of the lab report?
- 4) What suggestions do you have on improving the style/voice of the lab report?
- 5) Does the organization of each section make sense? What suggestions do you have on improving organization of each section?
- 6) Does the organization of each paragraph make sense? What suggestions do you have on improving this?
- 7) What suggestions do you have on fixing the structure of individual sentences?
- 8) What grammar edits do you have?
- 9) What punctuation changes do you suggest?
- 10) What changes to mechanics do you suggest?
- 11) What word-choice suggestions do you have?
- 12) Now that you have spent some time with the lab report, what is your feeling about the report as a whole?

Rubric for peer review

	1 point	3 points	5 points
Peer review	Incomplete edits, destructive edits, missing letter, missing in text comments, or no big-picture comments at all.	Edits (letter and in text) are complete, constructive, and include big picture comments. Comments do not follow the hierarchy of concerns.	Edits (letter and in text) are complete, constructive, and reflect concerns within the framework of the hierarchy of concerns.

Hierarchy of concerns for lab reports



Making effective concept sketches

1. Remember that concept sketches are more than labeled diagrams. Concept captions that describe processes and outcomes (or future evolution) are places where you can include evidence. Remember that concept sketches **MUST** stand alone.
2. Effective concept sketches will be neat, with clear diagrams and readable, concise captions.
3. Every caption should include four specific levels of thinking.
 - a. The caption should identify geomorphic feature in concise terms.
 - b. The caption should explain the relevant processes and/or history.
 - c. The caption should identify inter-relationships and linkages with other features.
 - d. The caption should make predictions about the future evolution of the feature.
4. Effective sketches will avoid numerical keying of observations and instead use leaders (curved lines without arrows on the end) and balloons to link ideas to locations on the sketch. Save arrows for showing motion.
5. Effective sketches will be well-organized, visually pleasing, and easy to read and understand.

How will I grade your concept sketches

Lab concept sketches are worth 10 points. The concept sketch must include identification, process, predictions, and interactions. Each is worth 2 points. The final 2 points are for it being visually pleasing. It doesn't need to be good art, but it should be well organized, logical, and easy to read.

Part/points	0 points	1 point	2 points
Identification: Identify the process happening at the location or the location where the process is happening	Missing or incorrect	Incomplete or imprecise	Correct and precise
Process: Geomorphic process that is happening at this location	Missing or incorrect	Incomplete or imprecise	Correct and precise
Predictions: How the process will change the landscape in the future	Missing or incorrect	Incomplete, imprecise, illogical, and/or no timeframe is given.	Correct, logical, and precise. Timeframe is given.
Interactions: How this process interacts with others in the area	Missing or incorrect	Incomplete, imprecise, and/or trivial	Correct, logical, precise, and non-trivial
Aesthetics	Missing more than 3 of the items for 2 points	Missing 2 of the items for 2 points	Neat, clear diagrams, readable and concise captions, leaders connect captions to sketch while arrows show motion, easy to read and understand

Concept Sketch FAQs

This handout is to answer the murky questions about concept sketches.

Labels

How long should the concept labels be?

They should be as long as it takes to go through identification, process, predictions, and interactions for that part of the sketch.

How detailed should explanations be?

They should be detailed enough that someone can understand what you are talking about but not so detailed that they get bogged down in what you are writing.

What audience are captions/labels aimed at?

Someone who has taken an introductory geology class.

Determining how things go together

Should you have many different processes illustrated in individual drawings or just one drawing?

That depends on what you are trying to show. I am open to either depending on what your goal is for the concept sketch. It will be easier when we are doing them for lab because you'll have only one or two things you are trying to convey.

What are the effective ways to organize a concept sketch?

Again, depends on what you are trying to show. If you want to run ideas by me for labs, I am open to that.

How do you best represent all the things you find?

For the lab concept sketches, you'll be trying to answer a particular question, so that will make them easier. For the mid-term and final assignment, you'll be given particular things to explain.

Is it better to have one big picture with lots of smaller points around it or lots of smaller cross-sections?

Depends on what you are trying to show.

How do you decide what clumps together?

This will depend on what you're trying to show with the concept sketch. It should be easier when you aren't making a concept sketch of the entire earth (or all of Alaska) but instead are focusing on one or two particular things.

Should all concept sketches be broken down by key geomorphic processes?

Yes, that is a good way to organize them. The whole idea is to show that you understand the processes.

Determining what to include

What information is critical vs superfluous? How do you decide?

For the labs you will be focusing on information related specifically to the lab. For the mid-term and final exercises, you'll be focusing on information that answers the questions I give you. You'll have to make some judgement calls on what is important.

How do you figure out what the key processes are?

You see what information you need to show to answer the question. If you are concerned for a particular question, come talk with me during office hours.

What should be included as essential information?

Whatever is necessary to answer the question you are asked.

What is a key process vs unimportant stuff?

Depends on the question you are asked.

Level of detail

Should you omit duplicate features for simplification purposes?

If it works for you and gets across all the information you need to share.

How much time should go into making a concept sketch?

Enough time to turn in a complete concept sketch.

How can you make a concise and representative concept sketch of a map of the entire world?

You can't. It was an evil activity.

How detailed should concept sketches be?

As detailed as they need to be to answer the question asked.

What is a process?

What is a "process" for a concept sketch?

The geomorphic processes are the internal and external forces that have created and are continuing to change the current landscape or feature being described.