

Chemistry One-Page Summaries

Each unit culminates with a set of summative assessments: opportunities for you to demonstrate your mastery of the skills and concepts covered in the unit. One of these is a one-pager, which is a creative response to your learning experience. The idea is to evaluate, recap, and apply information; demonstrating your understanding is only half the purpose of a one-pager, the act of creating it will also help you process and organize the information in your brain.

Components

Each one-pager must address **ALL** units and contain the following:

☐ Title

Your title should clearly define the content of the one-pager. "Unit 1 One-Pager" tells the reader nothing! In many ways, this is the ultimate task in summarization. Your title should be unique, and not the same as my unit title.

☐ Written Summary

This is the meat of your one-pager. It should be entirely in your own words and organized in a manner that is logical to you. Think of it this way - if your parent/sibling/friend asks what you're learning in Chemistry, you could give them your written summary and they would have an understanding of the unit material. **This should comprise a maximum of one-half (½) of the page.**

☐ Conceptual Question

Write and answer **at least** one non-math question that fall under Analysis/Synthesis/Evaluation on Bloom's Taxonomy of Questions. **OR** write and answer at least three non-math questions that fall under Understanding on Bloom's Taxonomy of Questions. **More points will be given for a larger number of questions and for questions from higher taxonomies.** A list of Bloom's question verbs is posted at the end of this document

☐ Math Problem

Write and solve **at least** one problem, showing all work with annotations explaining the process (as necessary). To receive maximum credit you must demonstrate an understanding of the most complex type of problem done in the unit. In sections without math aspects, additional Conceptual Questions will be done in place.

Within the above components, you must include the following. They may be presented independently, such as captioned photos, or covered as a part of a main component - for example the vocabulary could be incorporated into either the written summary or the math problem or the conceptual question.

☐ Pictures and/or graphics

These can be hand drawn, computer-generated, or pulled from the internet. They **cannot** come from any class materials (Nearpods, slideshows, videos, etc). Any images that are not your intellectual property should be cited*

☐ Vocabulary

Identify three (3) or more new terms you learned during the unit. These should be **highlighted** and used correctly in contextual sentences

☐ Connections

An important part of processing information and organizing it in your brain is identifying how it is related to other concepts you know. Your summary should demonstrate at least **TWO** connections of the unit content to the real world and/or prior chemistry units or science courses. One method of doing this would be to describe a hypothetical or real-world laboratory experiment where the unit material would be applied. If you reference actual research or industry laboratory work, information should be cited*

*Not all summaries require citations, but if yours does, you will need to include a properly formatted works cited, either as a second page or as an additional document. You may use APA, MLA, or another formal citation style of your choosing. *A list of links is not acceptable.* Points are not awarded for a works cited page, but will be deducted if it appears necessary and is not present.

Structure/Formatting

As the name implies, your summary must be **one**, single-sided, 8.5" x 11" page. Other parameters:

- All text must be 10pt or larger
- Margins must be ½" or larger
- No components should overlap such that they interfere with each other

Brevity is your friend! Beyond that, you have significant creativity in how you organize your summary..

Grading & Submission

An "A" one-pager will be engaging AND informative, and should show a thorough understanding of the topics of the given unit. Your product needs to be your own work, containing no plagiarism. *Any work containing plagiarized language will be treated as missing and will not count towards your grade.* The following rubric will be used to grade all one-pagers:

Component	Criteria for full credit	Points
<i>Title</i>	Clear and accurate description of the one-pager	5
<i>Written Summary</i>	A clear and concise overview of the unit	25
<i>Conceptual Question</i>	At least one higher level thinking conceptual question is included and answered accurately	10
<i>Math Problem / Second Conceptual Question</i>	At least one problem representing the most complex type of calculations in the unit is correctly solved with work and annotations	15
<i>Images</i>	Graphic representation is used appropriately to support written work	10
<i>Vocabulary</i>	3+ terms are identified as being new vocabulary and used correctly in contextual sentences	10
<i>Connections</i>	2+ strong connections are made between the unit content and real-world and/or prior chemistry units or science courses	10
<i>Coverage of Content</i>	All major topics (modules) are included	10
<i>Presentation & Style</i>	Information is conveyed in a creative and engaging manner, and organized neatly. Proper spelling and grammar are used, and all formatting guidelines are followed	5

All submissions must be uploaded to Schoology. Shared, emailed, or otherwise alternately submitted one pagers will NOT be accepted.

One-pagers may be revised and resubmitted for an updated grade within 1 week of scoring. Students must have supporting work completed satisfactorily to qualify for resubmission - **ALL** unit checkpoints must be mastered and learning activities submitted and marked complete.

Definitions	Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation
Bloom's Definition	Remember previously learned information.	Demonstrate an understanding of the facts.	Apply knowledge to actual situations.	Break down objects or ideas into simpler parts and find evidence to support generalizations.	Compile component ideas into a new whole or propose alternative solutions.	Make and defend judgments based on internal evidence or external criteria.
Verbs	<ul style="list-style-type: none"> • Arrange • Define • Describe • Duplicate • Identify • Label • List • Match • Memorize • Name • Order • Outline • Recognize • Relate • Recall • Repeat • Reproduce • Select • State 	<ul style="list-style-type: none"> • Classify • Convert • Defend • Describe • Discuss • Distinguish • Estimate • Explain • Express • Extend • Generalized • Give example(s) • Identify • Indicate • Infer • Locate • Paraphrase • Predict • Recognize • Rewrite • Review • Select • Summarize • Translate 	<ul style="list-style-type: none"> • Apply • Change • Choose • Compute • Demonstrate • Discover • Dramatize • Employ • Illustrate • Interpret • Manipulate • Modify • Operate • Practice • Predict • Prepare • Produce • Relate • Schedule • Show • Sketch • Solve • Use • Write 	<ul style="list-style-type: none"> • Analyze • Appraise • Breakdown • Calculate • Categorize • Compare • Contrast • Criticize • Diagram • Differentiate • Discriminate • Distinguish • Examine • Experiment • Identify • Illustrate • Infer • Model • Outline • Point out • Question • Relate • Select • Separate • Subdivide • Test 	<ul style="list-style-type: none"> • Arrange • Assemble • Categorize • Collect • Combine • Comply • Compose • Construct • Create • Design • Develop • Devise • Explain • Formulate • Generate • Plan • Prepare • Rearrange • Reconstruct • Relate • Reorganize • Revise • Rewrite • Set up • Summarize • Synthesize • Tell • Write 	<ul style="list-style-type: none"> • Appraise • Argue • Assess • Attach • Choose • Compare • Conclude • Contrast • Defend • Describe • Discriminate • Estimate • Evaluate • Explain • Judge • Justify • Interpret • Relate • Predict • Rate • Select • Summarize • Support • Value