Lab Report Critiques
Learning from Others
Why are we doing this?

- Often, mistakes are easier to spot if they are not your own
- See an 8th grade level student written, full lab report
- Practice communicating!

- Objective: Your task is to learn from other examples of lab reports for 8th grade science. The idea is not to criticize the student’s work, but to learn how to prevent mistakes in your own reports for this class.
Skills we are using:

- **ATL Skill**: Communication - Give and receive meaningful feedback

- **TEKS**: 3A in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student
Critique vs. Criticize

• The word **critique** connotes a detailed analysis that describes and weighs the characteristics of something before drawing conclusions based on evidence and inference.

• **Criticism** usually means “the act of criticizing” or a “remark or comment that expresses disapproval,” but it can also refer to the activity of making judgments about the qualities of books, movies, etc.

• Criticism is negative and not meant to be productive or helpful. A critique can be viewed as a way to learn and improve a skill.
What to do (Instructions):

Step 1:
• Look over the Model Lab Report Critique and the Lab Report Template to learn how to critique a lab report.
• Teacher comments are in the boxes to the right hand side of each section – read these to begin to understand

Step 2:
• On the Lab Report to Critique - Use the boxes provided to put your questions or comments about that section of the lab report.
• After you have finished, go back to the front page and answer the questions.
Lab Report Critiques - Learning from Others

Objective: Your task is to learn from other examples of lab reports for 8th grade science. The idea is not to criticize the student’s work, but to learn how to prevent mistakes in your own reports for this class.

ATL Skill: Communication - Give and receive meaningful feedback

TEKS: 3A in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student

Instructions:

1. Look over the Model Lab Report Critique and the Lab Report Template to learn how to critique a lab report.
2. On the Lab Report to Critique - Use the boxes provided to put your questions or comments about that section of the lab report.
3. In the space below, answer the questions.

What you learned:

1. What were some key “take aways” that you learned from this assignment?
Model Lab Report Critique: Teacher has commented in boxes to the side, on a student report so that you have an idea of how to do this task!

Explanation of the Oil Spill Lab — students were given the task of cleaning up an “oil spill” in a laboratory setting. This lab experiment replicated the efforts of engineers to clean up large oil spills in the ocean. Students designed a prototype and then tested its effectiveness.

Oil Lab Investigation

The problem we were faced with in this investigation was the dangers of oil spilt in our ocean, and how we can change the environment around us. Once oils are in our ocean, it is a very difficult and expensive process to remove these. Our goal in this project is to find productive and simple way to rid our oceans of harmful pollutants that are causing a negative effect on our marine life. We intend to test which materials soak up the most oil and least water to extract the maximum amount of oil from our simulated oceans. The experiment planned might not be completely effective, but will provide insight as to which materials might help with the overall oil clean up.

Question at hand: Which materials prove to be more effective to soak up the maximum amount of oil and the minimum amount of water?

Title — adequate. Could be more interesting and/or add variables. Other subheadings are not very large, they are easy to miss.

Introduction or Background Information — Student has explained the problem the group is trying to solve and how they will complete this task.

Question — Adequate, but this could be more specific.
Oil Spill Lab Template:

Science Lab Report Template – 8th grade Oil Spill Investigation

Follow the format below for this lab report in science. The headings should be copied and underlined exactly as this format shows. DO NOT use this to “fill in”, this is a guide for formatting your OWN report.

Title: (make this concise and interesting)

Introduction: (A few summary sentences about the problem (researched), what you intend to create and why you think it will work)

Question (The question that you are attempting to answer):

Hypothesis (must be an “if .... then” statement)

Variables: (List and explain your variables)
  Independent – (x axis):
  Dependent – (y axis):

Materials: (provide a list of all materials used, measurements of each too)
**Student Lab Report to Critique:** Remember, there are comment boxes to the side of each section. Place your critique of each section and any questions you may have about the content in that box.

<table>
<thead>
<tr>
<th>Operation Oil Spill</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Title:</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Introduction or Background:</strong></td>
</tr>
<tr>
<td></td>
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<tr>
<td><strong>Question:</strong> Will any of the materials help get rid of all the oil in the pan so that only water is left over?</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Hypothesis:</strong> If multiple items are put in the same pan as the oil is in, then the oil will be completely soaked up or dissolved leaving only water.</td>
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<tr>
<td></td>
</tr>
<tr>
<td><strong>Materials:</strong></td>
</tr>
<tr>
<td>- Baking Soda</td>
</tr>
<tr>
<td>- Cooking Oil</td>
</tr>
<tr>
<td>- Cotton Balls</td>
</tr>
</tbody>
</table>
How to complete this assignment -

If you have not gone through all of the steps, including answering the front page questions, this is HW due next class.