Grade 7 Mixtures Lab Report

For this lab report, you will not be including information on all of the work you performed in class. For the Equipment, Procedure, and Observation sections you will be choosing two experiments on which to report. You will use the same two for each of those sections.

Your lab report needs to include the following sections:

1. Purpose
    - In a couple short paragraphs, explain the scientific reason as to why you are writing this lab report. (What were you supposed to learn?)
        - The first paragraph should be a short explanation of the general concept that was to be learned (main concept, not station by station). This is not a paragraph with a lot of details, it is concise, but still explains the main idea clearly.
        - In a second paragraph describe, briefly, how the concept being examined is used – how would this information benefit people, or how would they use the methods we used.
    - Your purpose should cover the concepts to be learned by performing the set of eight experiments, not simply the two you have chosen.
2. Equipment
    - Provide dot-jot lists of everything you needed in order to do the two experiments you have chosen.
    - Use subheadings to separate the two lists.
    - Include images of the equipment (one image per station is fine).
    - Could include a diagram showing how the equipment was setup.
    - Keep this to a maximum of one page (should be less).
3. Procedure
    - Provide a numbered, step by step, description of your actions to obtain the results for the two experiments you have chosen.
    - Use subheadings to separate the two sets of instructions.
    - The step by step instructions should be written such that someone else could repeat your actions based on what you wrote.
    - Be sure your instructions are clear.
    - Keep this to a maximum of one page (should be less).

4. Observations
    - Complete observations only for your two chosen experiments.
    - Include both images in a table and a series of paragraphs communicating your sensory observations in writing.
    - Your table of results should show the different stages of observations (before mixing, before shaking, after shaking, after settling.)
    - You must include an image, picture or drawing, for each stage of observation, for both of your chosen experiments.
    - Your data table may also include dot-jot style written information.
    - In a series of paragraphs, indicate what information you obtained with your senses. What did you see/smell/feel/hear? (assume I was not there, tell me everything.)
5. Discussion
    - Answer, **in detail**, the following questions explicitly, each in a new paragraph:
        - Name a station in which you formed a homogeneous mixture. How do you know it is homogeneous? Why do you think it became so?
        - Name a station in which you formed a heterogeneous mixture. How do you know it is heterogeneous? Why do you think it became so?
        - Did the solids react in one way in hot water and differently in the cold water? If they did, can you explain why?
        - In which case did a chemical reaction take place between a solid and liquid? How do you know?
        - Did the half test tube of sugar and half test tube of water add up to one full test tube? Explain what you think happened.
    - Keep in mind that the discussion questions provided are only half of your discussion section.
    - Use the guiding questions from the ecological sampling experiment as an idea of what else you may discuss. Think about sources of error.
    - Discuss anything that you learned/thought of as you performed the experiments.
    - Your discussion may be related to any of the eight stations, not just the two on which you have reported.
6. Additional Information
    - The last section of your mark comes solely from information I do not request. For example, I have not asked for a title page, including one will get you marks towards this section.
    - Include multiple additional components, each showing an understanding of the topic (i.e., a glossary of terms).