

Details of Unknown Project Requirements

1. Characteristics Table: As we learn about the various organisms and lab tests used to identify them in lab, you will collect the data in a table. This will become the basis for the creation of your flow chart. Be sure that your table contains the names of all of the organisms we have seen in lab and all of the tests we conduct on them. This means that you will have to share data with other groups since the cultures will usually be split up among the various lab tables. Even if your group did not use a particular test on a particular organism, you are still responsible for collecting the data. *NOTE: We will not be conducting every test on every organism. Do not be tempted to go online to get results to “fill-in” for tests we did not conduct. Only record results for tests we actually conducted in lab.*

- Must have ALL results from ALL organisms seen in lab
- Must be legible and organized in a logical format (e.g. G+ separate from G- organisms, cocci separate from bacilli)
- May be typed or hand-written VERY neatly
- Organisms names must be correctly spelled and formatted

2. Flow chart: Your flow chart is a dichotomous key. This is a system to guide you into identification of your unknown in a few concise steps. Starting on page 457, your lab manual discusses the use of flow charts. Look at these charts for guidance in designing yours. Your flow chart must include only the organisms that are on the list of potential unknowns and must include only the tests we have used in lab this semester. Use the data you have collected in your characteristics table to complete the flow chart.

Your flow chart will be turned in as a rough draft during lab a week or so before we begin the unknown project. It is imperative that you have a rough draft prepared at that time. On that day, I will look over your flow chart, make recommendations for corrections and hand it back to you. Make the corrections and use the final draft as your guide during the project.

As you work through the identification of your unknown organisms, you will use your flow chart to guide you each step of the way. You should mark it with a highlighter each time you get a result. After you have completed the identification of your unknown, you will turn in the final draft of your flow chart (the copy that you used during the project). It should be marked with highlighter to show the paths you followed to reach the identification of your unknowns.

- Must have ALL potential unknowns listed
- Must be practical to use (by anyone)
- Must be legible and well organized
- Must lead to IDs in the fewest number of steps
- May be typed or hand-written VERY neatly
- Organisms names must be correctly spelled and formatted

3. Logs of Results: As you conduct each test you must log the data using the log forms provided in your lab manual (See pages 462 and 472). You may also wish to keep a secondary log in your lab notebook, but the log you turn in must be the one from the lab manual. Photocopies are acceptable. You will turn in two separate logs, one for each unknown organism. The first test recorded on each log will be the gram stain.

- Must be complete and legibly handwritten
- Must use log forms from lab manual (photocopy okay)
- Must have separate logs for gram positive and gram negative unknowns
- Must not conduct unnecessary/redundant tests

4. Narrative: When you have completed the identification of your unknowns, you will write a narrative describing the project. This will be about 1 to 2 typed pages depending on how many tests you had to conduct to reach your identifications. You should discuss each test conducted on each lab day. You should discuss why you conducted each test and what the results mean. In other words, which organisms have been ruled in or out? Do not describe the procedures involved in each of the tests (e.g. listing the steps of a gram stain). Be sure to describe any errors or issues that arose while you worked on the project.

- Must be complete (i.e. narrative for each result found each lab day)
- Must make sense (test results must be interpreted correctly and lead to appropriate organisms)
- Must be typed
- Must be in complete sentences
- Must have correct spelling, punctuation, formatting
- Must be very detailed (no doubt about what test was performed on which tube/plate and why)
- Do not describe details of procedures
- Do explain what each result means in terms of which organisms are ruled in/out.