

Name: _____

BIOL 204 F10

Date: _____

LABORATORY UNKNOWN

The purpose of this exercise is to be able to obtain colony isolation and identify microorganisms. The microbe(s) will be identified as to genus and species (where applicable). An abundance of evidence suggests that working in groups assists learning. You may confer with others in your class regarding your unknowns, do your own work independently. Be complete in your descriptions and flow charts, but do not include information that is not relevant to the identification. Partial credit will be given if you miss the identification of the organism(s) because one or more tests were incorrect, but your analysis and flow chart is correct based on your results. Likewise, if your flow chart does not support the identification, then even if correct identification is submitted, points will be deducted.

- a. You will be given a mixture of two organisms in the same broth tube.
- b. Record your unknown's number; how it is given to you, and label the tube with your name.
- c. Perform a gram stain. Remember to make a wax ring on your slide. Put a couple of drops of your broth onto the slide with a sterile pipette or loop.
- d. Staining a broth is more difficult than staining a colony from a plate. Focus on the wax ring first, and then try to find the bacteria.
- e. Inoculate your unknown on Blood, MSA, Rose, and MacConkey agars.
- f. **Use your very best streaking technique** so that you will achieve isolation of both organisms.
- g. Label your plates as usual with the date, your name, and unknown number. It is a good idea to tape your plates together so they don't get separated. Incubate them at 37°C for 24 hours.
- h. Identify them as organisms "a" and "b" when first isolated.
- i. Record all your work and observations and on the following pages. It will be similar to a journal. Turn these pages in along with your Laboratory Unknown Forms.
- j. Develop a plan of action for the identification for each of your organisms. Look in your "Family Album" section, lab test results, and helpful tables given to you in lab. Use reference books, atlases, etc.

No Dry Labs PLEASE! This would be considered a form of cheating! Confirm ALL your results with the instructor.

LABORATORY UNKNOWN JOURNAL

NAME: _____

DATE: _____

LABORATORY UNKNOWN # _____

[illegible]

Laboratory Unknown Journal (continued)

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Laboratory Unknown Report

Name: _____

Points _____

Date: _____

Laboratory Unknown #: _____

Identification methods:

1. Colony morphology and preliminary identifications (8 pts)

Media Plate	Colony Description/Reaction/Hemolysis/Pigment	Conclusions

2. Microscopic Examination – Gram stain (3 pts)

3. Isolation Procedure - Date, Steps, Results of each step. (10 pts)**Procedure****Date:** _____**Date:** _____**Date:** _____**Date:** _____**Date:** _____

Remember to save a stock culture of your isolates in case you need to redo tests.

4. Flow Charts of the tests performed (10 pts)

5. Confirmatory Tests (4 pts)

Gram Positive Unknown		Gram Negative Unknown

6. Presumptive identification; if correct, go to the next step. If incorrect, up to 2 points per unknown may be deducted, and you need to go back and redo some tests. (4 pts)

a. _____ b. _____

7. Confirmed identification – with instructor's signature (6 pts).

a.	Signature:	
b.	Signature:	

Student Acknowledgement of Independent Work

I hereby confirm that I _____ performed all the work above independently, using the lab material available at AVC only, without the help of other individuals outside this lab.

Signed and Dated: _____

8. Attach a separate piece of paper (one per organism) with the following information: (5 pts)

- a. Description, morphology, Gram stain**
- b. Diseases caused by organisms**
- c. Virulence factors**
- d. Treatment (and prevention)**
- e. Epidemiology (Who gets it) if applicable**

Please type this information for each unknown and staple all pages of this report together.

Font 12 pt Arial or Tahoma, double spaced. (2 points will be deducted if the proper format is not followed).

The report is due on _____ . No reports will be accepted after this date.

Note:

Please include any pictures, notes, diary, etc. if applicable to show all the work done. The instructor will initial the work performed on that day, and confirm observations when applicable.