

INTRODUCTION TO DICHOTOMOUS KEYS IN THE BACTERIOLOGY LABORATORY
with an example, utilizing a special set of organisms (not the list from Experiment 17)

Suppose we would like to take the organisms in **Experiments 12, 13 and 14** and differentiate them based on characteristics we could determine in the lab. We would start to make a table and probably find a lot of **blank cells** where characteristics (including test reactions) are **unknown and possibly variable**. The last four rows are based on information in the table at the end of Experiment 14A (the Enteric Bacteria).

genus or group	gram rxn	shape	catalase	glucose ferm	hot-loop test	lactose ferm	phenyl-alanine	H ₂ S	motility	starch
<i>Bacillus</i> *	+	rod	+	var		var				var
<i>Clostridium</i> *	+	rod	-	+						
<i>Lactobacillus</i>	+	rod	-	+					-	
<i>Staphylococcus</i>	+	coccus	+	+					-	
<i>Micrococcus</i> *	+	coccus	+	-		-			-	
<i>Leuconostoc</i>	+	coccus	-	+	+				-	
<i>Streptococcus</i>	+	coccus	-	+	-				-	
<i>Lactococcus</i>	+	coccus	-	+	-				-	
<i>Neisseria</i>	-	coccus	+						-	
<i>Pseudomonas</i> *	-	rod	+	-		-			+	
<i>Klebsiella</i>	-	rod	+	+		+	-	-	-	
<i>Citrobacter</i>	-	rod	+	+		var	-	+	+	
<i>Morganella</i>	-	rod	+	+		-	+	-	+	
Other Enterics	-	rod	+	+		var	var	var	var	

* = added for comparison (information from Experiment 7A on-line key)
var = variable, some cultures + and others -.

Following is one of many possibilities for a **DICHOTOMOUS KEY** based on the information in the table above. We start with things we actually know about for all of the organisms, and the same physiological test need not be found at the same level in this key.

