

Lab 4: What a Colorful World  
(AmpR version)

**Biological Materials:**

Strain 4-1            NB438            K type cells ER2738, cat#E4104S)  
Strain 4-2            NB452            B type cells NEBexp,cat# C2523I

**Reagents:**

DNA from NB446    pPRL.Amp    0.04ug/ul  
DNA from NB451    pGRN.Amp    0.04ug/ul  
CaCl<sub>2</sub>\*H<sub>2</sub>O                    0.735 g

**Next steps (per student team):**

Day 1: patch one square of each strain on an LB plate  
Day 2: run tx'n expt (need 6 LB+amp plates, 0.4 ml CaCl<sub>2</sub>, 3ml LB)  
Day 3: data analysis

**Teacher provides:**

Consumables

Sterile toothpicks, inoculating loops or sterile tips  
Wooden dowels  
Eppendorf tubes (6)  
LB (3ml)  
LB+amp petri dishes (6)  
LB petri dish (1)  
Pipet tips  
Latex or nitrile gloves

Equipment

37° incubator for growing petri plates  
42° heat block  
Icebucket, ice  
Timer  
Eppendorf rack  
Spreader + flame OR sterile glass beads  
Sharpie pens  
Pipetmen (P1000, P200, P20)