



Mr. Silluzio
BioMed Lesson Plan
Date:

Topic: Prokaryote Gene Regulation

Summary:

This series of lessons provides students with the opportunity to use bacterial transformation to genetically modify bacterial colonies. Understanding this lab activity requires that students first understand plasmid DNA and the operon model. This first lesson focuses on the prokaryote plasmid DNA, typical genes found on plasmids and an introduction to the operon model. Following whole class instruction, students will work in groups to answer specific questions relevant to the lac and tryptophan operons.

Goals/Objectives:

- **Be able to explain the difference between plasmid dna and cell's genome.**
- **Be able to identify the parts of the operon model.**

Standards:

[Click here for corresponding learning standards](#)

Time Required:

1 or 2 80 minute periods

Prerequisite Knowledge:

Complete understand of gene transcription, protein synthesis and the structure of a typical prokaryote cell.

Accommodations:

All notes and various enrichment materials are available on line.