Virtual Lab: Bacterial Transformation

Name:		
Date:		

Go to:

http://www.classzone.com/cz/books/bio 07/resources/htmls/virtual labs/virtualLabs.html", then pick "Bacterial Transformation.

Read the Problem.

1. How did transformation create better insulin?

Follow the steps and answer the questions below.

- 2. Explore the science lab and list the function of the following items:
- a. E-Coli plasmid-
- b. Warm water bath-
- c. Calcium Chloride-
- 3. Write your prediction below and in the notebook. Follow the steps of the procedure and then record your results below.

	1	2	3	4
Conditions	Control w/ E. coli + amp ^r	Agar + Amp with E coli	Control Agar w/ E. coli –	Agar + Amp with E. coli -
	con + amp	+amp ^r	amp ^r	amp ^r
Growth predictions				
Growth Results				

4.	What does the genome of a transformed E. coli cell contain that a normal E. coli cell does not contain?
5.	Based on your observations, how can you tell which, if any, of the bacterial cells were transformed?
6.	Which Petri dish(es) showed the most growth and which showed the least?
7.	What does the culture with partial growth tell you about whether all of the bacterial cells incorporated the ampR gene?
8.	Look at the two Petri dishes that had the most growth. What do they have in common?
9.	Explain why the ampR gene offers or does not offer an advantage when grown in the environment of these Petri dishes.