**Procedure of the Experiment**

Materials:

                                      Petri dishes          Mixing bowl

                                      Spoon                 E. coli strain B

                                      Oven                  Neosporin

                                      Q-tips

Procedure:

1)  Sterilize mixing bowl.

2)  Sterilize petri dishes.

3)  Make a nutrient broth.      \*\* We used a nutrient broth of a substance called Tryptic Soy Agar. First boil about four cups  of water for about five minutes to kill all live bacteria and sterilized the water. Then place two cups of warm water  into the mixing bowl and mix it with the Tryptic   Soy Agar powder. Mix the solutions and then place it into a  microwave for further heating.  This will allow the water and Agar to solidify.

4)   Put the nutrient broth into the petri dishes.

5)   Allow for the broth to solidify.

           - After broth solidified, go to next steps.

6)   Carefully place the bacteria (Escherichia coli strain B) into the petri dishes. You do this by taking Q-tips and dipping them into the E. coli then lightly rolling them over the nutrient broth. This allows for even distribution of the E. coli in the broth.

7)   Place three of the dishes into a oven at the temperature of 37 Celsius.  Allow for two days to grow.  This will be our first generation which has no anti-bacteria or our control generation.

8)   Then on five of the dishes place about a small dab of neosporin on one side of the petri dish so as to not affect all the bacteria on the dish.

9) Allow for two days to grow. This will be our second generation.  You should find that most of

 the bacteria will die.

10) Take a sample of the live bacteria and the dead bacteria and place them onto five other petri

 dishes. This will allow for the live bacteria to hopefully "eat" and incorporate the dead bacteria's DNA into the live bacteria's DNA.

    Do steps 9 and 10 until you have 4 generations

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*This page last updated 4/23/98*