Title: Bacteria Blockade By: Lucien Sadykov

Inquiry: Which blocks bacteria growth better on an apple, a bandage or gauze?

Independent variables - Gauze and bandage

Dependent variable - Amount of bacteria growth

Controlled variable - Same environments, same object, both in same incubator, both same temperature

Hypothesis - If I test what protects against bacteria better gauze or bandages, and gauze would work better to prevent bacteria because it is tighter around the object and it will make it tougher for the bacteria to get in. The gauze will also allow to circulate air.

Materials

1. Petri dish
2. Swabs
3. Sliced apples
4. Bandages
5. Gauze
6. Incubator
7. Computer

Procedure

1. Take two apple slices, cover one completely in gauze and the other one in bandage.

2. Put the covered apple slices in a plastic baggie and put the plastic baggies in the incubator wait 12 hours

3. After the wait is over take off the gauze and bandage, record the data and swab the apples and put the bacteria inside a petri dish put it in the incubator for another 12 hours.

4. Record the results on a powerpoint or on paper

Data

Day 0 (before swabbing). Bandaid apple seems to have dehydrated faster than the gauze apple. I am going to collect bacteria from the apples and put it on a petri dish, I am starting to swab the apples. It appears that that the bandage apple has dehydrated faster than the gauze one. Note: The gauze apple feels velvety while the bandage one looks mushy and has asweet potato color.

Day 1. **96 hours (since incubation) Ewwwwwww! It appears that the bandage apple has so much more bacteria than the gauze one. It spread throughout the petri dish like a spider web. it has a weird kind of fuzz and smells like a moldy cracker that makes me gag. The gauze apple has a bunch of small colonies .**

Day 2. **120 hours It pretty much looks the same as yesterday so far the gauze appears to be more sanitary (we need some febreeze) it looks like some moisture is trapped in there.**

Day 3. **168 hours I have my conclusion it looks the same as 2 days before.**

Ending

Analysis **An apple covered in bandage seems to have grown bacteria more than one covered in gauze. The Bandage bacteria seems to have taken over the petri dish and has a yellow tint to it with fuzz. The bandage bacteria seems to be**

piled in one place and appears to look like dried yellow custard.

Conclusion Real world application: appears that the gauze prevents bacteria better than a bandage. This means that you should use some gauze on your cut instead of bandage to prevent bacteria.

My hypothesis was correct because the bandage apple grew more bacteria than the gauze apple.

Errors: The bandage bacteria spread everywhere on the petri dish so it was hard to see the gauze bacteria.