The ‘dirtiest’ spot
Leiden 2019 iGEM team

Microbial life can be found everywhere; that is what we wanted to tell people during the Museum Night in Leiden. We organized a competition to see who could collect the most variety of microbial species in the Hortus Botanicus. This was done by letting everybody sample surfaces of their choice using a Q-tip, followed by culturing the microorganisms on agar plates. Some parents were concerned about the safety of microbes, which was an exciting opportunity to engage in a discussion about beneficial uses of bacteria, such as in waste treatment.

Materials
- Petri dishes with LB agar
- Q-tips (or toothpicks)
- Optional: price for the winner of the competition

Procedure
1. Prepare Petri dishes with LB agar.
2. Give a Q-tip and a Petri dish with LB agar to visitors. Make sure the visitors do not contaminate the end of the Q-tip with their own hands.
3. The visitors can sample by swapping the Q-tip over a surface and streak it over the LB plate.
4. Collect all the Petri dishes (and mark them to know which dish belonged to which visitor)
5. Let the microbes grow in the incubator at 32 degrees Celsius for one week.
6. After a week, the number of colonies and/or the number of different microbial species can be counted. We announced our winner anonymously via social media.

Tip: you can already talk with the visitors before sampling about where you might find most species. This can result in interesting discussions about microbial ecology.