

Challenge Questions: Lab 13

When you have finished with lab, discuss these with your group. Include a group response in your homework.

1. You're a soil microbiologist. A friend of yours wants to start a garden and has read that having a healthy soil food web is essential to having a healthy garden. Your friend asks you to help him determine if the soil in his garden has a wide diversity of soil microbes. What procedures could you use to assess the diversity of microbes in a soil sample? What advice would you give to your friend to help increase the diversity of microbes in his garden soil?
2. You're a high school biology teacher. Several of your students have been discussing some products they've seen on the web that claim to be "safe, natural" herbal antibiotic ointments, such as grapefruit seed extract, garlic, and tea tree oil. Suggest an experimental design that students could carry out in a typical high school science classroom to test the efficacy of these herbal preparations and to compare their efficacy with that of standard antibiotic ointments.