

iGEM High School Lesson Guide

Session One

11:15 Set Up

- Set up class so tutors are at same level as students

11:30 Students Arrive

- Get Students settled

11:35 Introductions

- What is iGEM
- Who are we?
- What our project is
- The Tutors
- Explain Part 1
 - Why we are collecting samples
 - How to collect samples

11:50 Collect microbial samples on Agar

- Send students to collect samples on Agar
 - Hand wash
 - Air sample
 - Soil sample
 - Think of your own!

12:00 Introduction to basic Microbiology

- What is microbiology?
- Why is it important?
- What is a microbe?
- Where do you find them?
- Famous microbes
- Cool microbes

12:15 Questions and Homework

- Tell students to look up a microbe that they are interested in for next time.
- Answer any questions the students have about science at Auckland Uni.

12:20 Food and Break Up

- Mingle with students and eat
- Remind students about homework
- Tidy up classroom

Session Two

11:15 Set up

- Set up class so tutors are at same level as students
- Lay out the agar plates in predetermined groups

11:30 Students Arrive

- Get Students settled into predetermined groups of 5 with one tutor each.

- Discuss what you found out about a microbe.

11:40 Examining Agar Plates

- How many different types of colonies are on your plate?
- Describe what kinds of colonies you have.
- Do you have any of the example colonies?
- What kind is most common?
- Do you have one no one else does?
- Who has the grossest?

11:50 Looking at slides

- Show students pictures of slides we have made up from the plates with the most interesting colonies.
- How would you describe the microbes?
- Explain different ways we might identify microbes.

12:00 What is Science at Uni like?

12:10 Food and Mingling

- Mingle with students
- Answer questions
- Tidy up classroom