

## Lesson Plan

Class/grade:	Science 7
Date(s) taught:	3-4 Weeks
Teacher:	Karen Morton

Lesson title:

Inquiry Lab: Staying Healthy

Lesson objective(s):

- Students will work collaboratively to design and conduct a controlled experiment using nutrient agar to answer their questions about how to stay healthy.
- Students will create a final lab report, by collaborating with Google Docs, to communicate their findings which will be published on the teacher's website for parents and other members of the school community to view.

Language/vocabulary:

microorganisms, pathogens, nutrient agar,

Materials/technology:

Sterile nutrient agar petri dishes, tape to seal them, markers for labeling, other materials selected by students for testing, access to the internet for collaborating with Google docs, document camera or digital camera for taking pictures of final results.

Standards met:

Students know and understand the characteristics and structure of living things, the processes of life, and how living things interact with each other and their environment.  
Explain and illustrate with examples how living systems interact with the biotic and abiotic environment.

Instructional plan:

1. Questions: Students are asked how we can keep from getting sick. They brainstorm in groups and share with the class.
2. Information: Students watch a video of microorganism growth on petri dishes with nutrient agar. <http://www.stevespanglerscience.com/experiment/growing-bacteria>. Then they brainstorm again in groups what they can test to answer the original question. Then students research any background information they need to design their experiments.
3. Application: Students decide on a hypothesis, have it teacher approved, then create an experimental procedure. Once the procedure is approved, the teacher supplies the sterile

nutrient agar petri dishes while students supply any other materials to conduct the experiment. Students grow their microorganisms for up to 3 weeks, recording their observations.

4. Assessment: Students take pictures of their final results with a document camera or digital camera. They then use Google Docs to write a lab report collaboratively, dividing the work equally among group members.

Differentiation/accommodations:

Students work collaboratively throughout, each group member choosing to contribute in their area of strength. School laptops are provided for those without access at home. Teacher monitors progress throughout.

Assessment:

Inquiry Lab Report Rubric