

Culturing Great Salt Lake Microbes

Abiotic Factors Challenge

Background

Like plants and animals, different types of microbes thrive under different conditions. Some microbes can even survive in extreme conditions where other organisms can't. Environmental factors such as temperature, pH, salinity, and oxygen concentration can influence whether or not a type of microbe survives. Which conditions are ideal for Great Salt Lake Microbes? What extremes can they handle?

Your challenge: Design an experiment that tests the effect of one or more environmental factors on the growth of Great Salt Lake microbes.



1. Review the Culturing Great Salt Lake Microbes lab protocol as a place to start.
2. Use the questions below to help you think about how to expand or alter the protocol to test environmental factors.

List the environmental factors and extremes Great Salt Lake microbes encounter. Indicate the factor, or factors, you'd like to test.

Will you need to alter the growth media? How?

Will you need to alter the conditions (UV exposure, temperature, etc. at which you'll incubate your agar plates? How?

3. Describe how you will design your experiment. You may write it out or make a labeled drawing.