

This is Module #2 on how soil properties such as moisture and pH interact with soil microbiomes. The two-week module roughly goes through two 5E learning cycles.

Engage      Secret life of trees

### Week 1

Explore      The other videos and discussion board post

Please tell us briefly what about of the assignment you found most challenging or confusing AND why. If you did not find any part of it challenging or confusing, please tell us what parts you found most interesting AND why. The "why" explanations are critical for you as students to articulate as part of the learning process, and they are also the most useful for the instructional team to read, so we can help you be more successful in the course.

Instead of creating your own post, you could also reply to one another's posts while still thoughtfully addressing the reflection question. Be creative, and the possibilities are endless! Your post(s) could be in the form of text, image, and/or video. If you would like more instructions regarding how to post on the discussion board, please take a look at this [Canvas document \(Links to an external site.\)](#).

Explain      Interactive Zoom focusing on course content and discussion board posts

Elaborate      Lab activity with data analysis on soil moisture and pH (small data set)

Evaluate      Formative: Submit calculated values from lab to Canvas "quiz" (graded for completion)

### Week 2

Explore      Primary literature search a discussion board post

When writing and engaging in research, we often have to look up sources of information. Remember: The best sources of information are those from peer-reviewed literature, including primary research papers that report original work and secondary review articles that synthesize larger body of primary work into a summary. News articles are typically not peer reviewed and are considered tertiary sources in this case.

To find peer-reviewed literature, please start with the [BILD 4 Library Guide \(Links to an external site.\)](#). Some papers and articles are behind the paywall and accessible as part of our campus library subscription; please see the [Campus Blink website \(Links to an external site.\)](#) for more information on how to access these resources.

**For this assignment:** Find a primary research paper of your choice on soil microbiomes in relation soil properties (such as but not limited to moisture and pH) and answer the following questions:

- What is the main research question that the investigators were asking?
- Choose one of the figures or tables that you think best addresses the question? Why do you think so?
- Also download the paper in PDF and attach it to your post

You should be able to identify the main research question by focus on the abstract/summary and use your own judgement to see which figure or table best addresses that question. For more complete understanding, you can also read the rest of the paper. Whatever paper you find could be useful for the upcoming writing assignment!

Explain      Interactive Zoom focusing on primary literature and discussion board posts

Elaborate      Lab activity with data analysis on soil moisture and pH (large data set for writing assignment)

Evaluate      Summative: Writing assignment and quiz