

# Landing Virtual Learning:

## Using Zoom Annotation Tools and At-Home Supplies to Teach Land Evaluation

### Introduction:

- As agricultural educators adjust to a new virtual or hybrid teaching norm, some may still struggle to teach CDEs due to their hands-on nature.
- By using common household pantry staples, agricultural educators can provide hands-on, tactile instruction to teach soil textures.

### Methods:

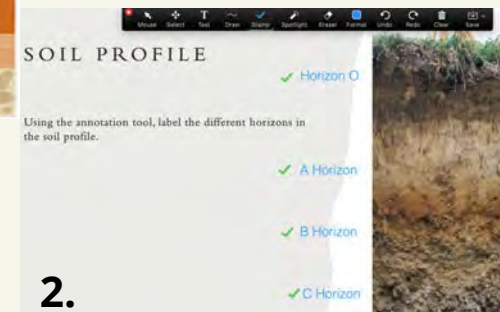
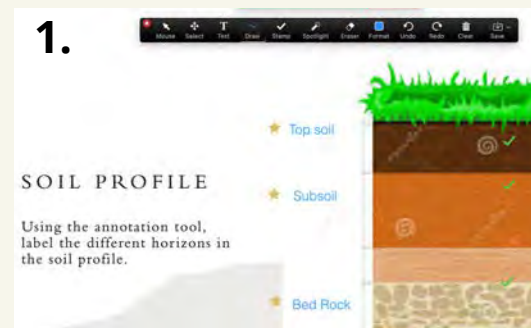
- Have students gather the following materials: salt, sugar, coffee grounds, corn meal, flour, dried beans, and rice.
- Share a brief, interactive Google presentation to introduce key concepts of the land evaluation CDE.
- Activity sequence:
  1. Students then use the Annotate tool in Zoom (Zoom, 2021) to label the correct horizons (i.e., topsoil, subsoil, and parent material).
  2. After students label the correct horizons, scatter high-definition photos of each horizon.
  3. Place students in groups and send to them breakout rooms, where they are tasked with rearranging the photos to build a soil profile.
  4. Using the pantry items gathered in the beginning, allow students to explore the textures and identify which texture category each item belongs to.

### Future Plans & Advice to Others:

- Practice using the annotate tool and ensure settings allow all participants to use the feature in Zoom prior to launching with a class.
- Share the lecture slides and reflection questions with students.
- Have students collect soil samples from around their homes.
- Provide reflection questions for students.

### Results to Date & Implications:

- Best suited to use as an introduction lesson to teach students about soils.
- Students acknowledged the content from the Google presentation was designed to promote higher-order thinking in the lesson.
- The continuous interaction promoted engagement.



### Cost & Resources:

- Common household items likely found in a student's home.
- Students can purchase the needed items (salt, sugar, coffee grounds, corn meal, flour, dried beans, and rice) for approximately \$20.



Abstract



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