

OJT Module Cover Sheet

Title: 1202 How to recognize soil pedon horizon boundaries and depths.

Type: Skill Knowledge

Performance Objective: Trainee will be able to...

- Recognize and describe horizon boundaries of a soil pedon observed in the field.
- Determine horizon thickness of a soil pedon observed in the field.

Target Proficiency:

- Awareness Understanding Perform w/ Supervision
 Apply Independently Proficiency, can teach others

Trainer Preparation:

- Trainer should be familiar with the assigned reading/review material in the lesson plan that follows.
- Trainer must be proficient in describing soil profiles.
- Trainer should provide spray bottle with water, spade, suitable markers to designate horizon breaks (golf tees or nails), and broad dull knife or trowel for preparing profile surface and measuring tape.
- Trainee should have the Munsell Soil Color charts commonly used in the area.

Special Requirements:

- Initiate an external learning request with a SF-182 in Aglearn for this activity. Instructions and a template are located on the training webpages for OJT modules.
- Trainer should identify road cuts embankments, or soil pits for use in this training.

Prerequisite Modules:

None

Notes:

Having color photographs of soil profiles with depth tape and horizon boundaries identified would be useful.

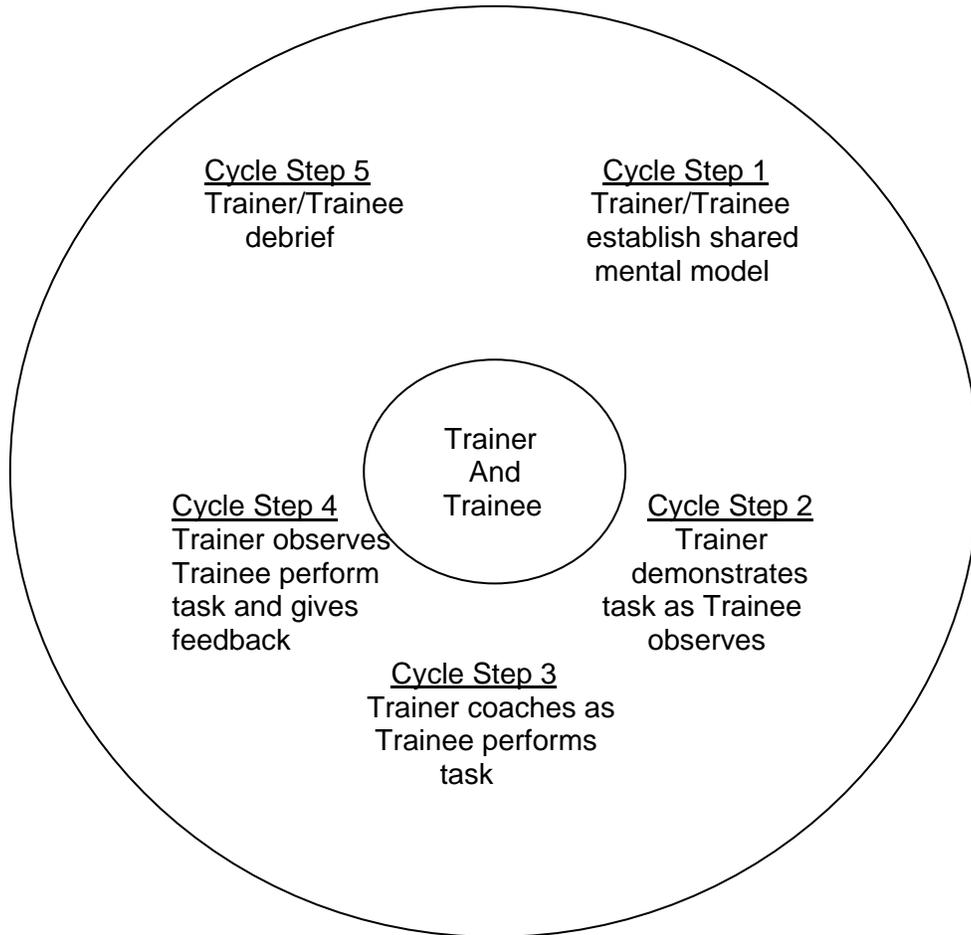
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The Five-Step OJT Cycle for Procedural Training (Skill)



OJT Module Lesson

Title: **1202 How to recognize soil pedon horizon boundaries and depths.**

WHAT	WHY, WHEN, WHERE, HOW, SAFETY, QUALITY
Cycle step 1	<p>Trainer and trainee agree to the objectives. Trainer and trainee should access via the internet and/or hardcopy (Field Book) and read/review:</p> <ul style="list-style-type: none"> • Soil Survey Manual, chapter 3: <ul style="list-style-type: none"> ○ Depth to and Thickness of Horizons and Layers • Field Book for Describing and Sampling Soils: <ul style="list-style-type: none"> ○ Horizon and Layer Designations • Keys to Soil Taxonomy, Chapter 18: <ul style="list-style-type: none"> ○ Designations for Horizons and Layers
Cycle step 2	<p>Trainer and trainee visit preselected soil pits, road cuts, or embankments to observe horizon boundaries and depths.</p> <p>Trainer demonstrates how to identify horizon boundaries.</p> <ul style="list-style-type: none"> • Trainer shows trainee the different characteristics that are used to differentiate between horizons common to the area. • Discuss the morphological aspects of identifying horizons and their boundaries. Briefly discuss horizon nomenclature designations for these horizons for trainee understanding purposes only. • Discuss the method of measuring depths and thicknesses of horizons.
Cycle step 3	<p>Trainer coaches trainee as trainee identifies various boundary features and measures the depth of the observed profiles.</p> <p>Discuss the horizon designations and boundary descriptions when appropriate.</p>
Cycle step 4	<p>Trainer provides feedback as trainee independently identifies horizon boundaries and depths using a different soil profile.</p>
Cycle step 5	<p>Trainer and trainee can debrief the exercise and answer any questions. To add interest, trainer may choose to discuss situations found elsewhere.</p>

OJT Module Lesson Measurement of Learning

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WHAT	WHY, WHEN, WHERE, HOW, SAFETY, QUALITY
Select other profiles from pits, embankments, road cuts, etc. for further trainee practice.	Trainee identifies the morphological indications of horizon boundaries, their depths from the surface, and their thickness without coaching from the trainer.
Repetition	During regularly scheduled soil profile description collection, let trainee identify soil boundaries. Repeat until the trainer is satisfied that the trainee can identify horizon boundaries.

SF-182

Trainee and/or supervisor access Aglearn to verify completion of the module via its SF-182.