

OJT Training Module Cover Sheet

Title: 120 Soil Consistence: How to describe soil rupture resistance.

Type: Skill Knowledge

Performance Objective: Trainee will be able to ...

- Describe and record soil rupture resistance in dry and moist conditions using the *Field Book for Describing and Sampling Soils*.

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.
- Have soil samples and field locations with pit, trench, road cut, or auger borings available.
- Have the *Field Book for Describing and Sampling Soils* available.
- Have hardcopy of the 232 soil description form or Pedon PC available.
- Optional: Have available spring assembly tool for calibration of soil rupture resistance (can be requested from NSSC) and supporting document (access via the internet with; <http://hdl.handle.net/10113/23731>): **Seybold, C.A., D.S. Harms, and R.B. Grossman. 2009. Describing soils: Calibration tool for teaching soil rupture resistance. J. Nat. Resour. Life Sci. Educ. 38:11-15.**

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.

Prerequisite Modules:

- 101 How to use the *Field Book for Describing and Sampling Soils*.
- 102 How to fill out a 232 soil description form.

Notes:

None

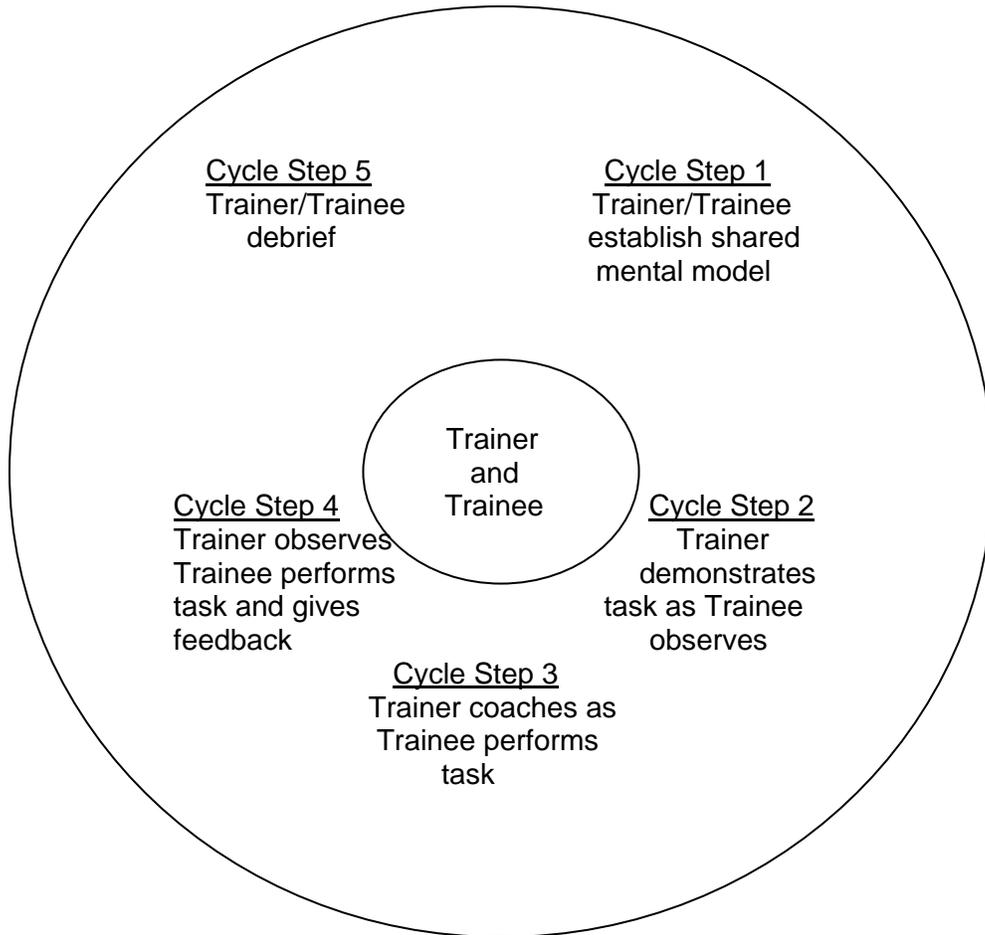
Authors:

Cathy Seybold
Marc Crouch

Approved by:

Shawn McVey

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



OJT Module Lesson

Title: 120 Soil Consistence: How to describe soil rupture resistance.	
WHAT	WHY, WHEN, WHERE, HOW, SAFETY, QUALITY
Cycle step 1	<p>Trainee should access via the internet and read Soil Survey Manual, Chapter 3 section on soil consistence.</p> <p>Access hardcopy or via the internet and review material about soil consistence in the <i>Field Book for Describing and Sampling Soils</i>, with emphasis on dry and moist rupture resistance classes.</p>
Cycle step 2	Do the following:
1. Review what can be recorded according to the Field Book and SSM.	<p>Note that rupture resistance has separate estimates for blocks, peds, and clods and for surface crusts and plates. Note the different tables to be used for each.</p> <p>Note that the dry resistance column applies to soils that are moderately dry or drier and the moist column applies to soils that are slightly dry or wetter.</p> <p>Review the classes and the amount of force needed for specimen failure for each class.</p>
2. Demonstrate how to describe and record rupture resistance following the Field Book instructions.	<p>Do this in the field (though you may need to take moist specimen back to your office to dry). Both dry and moist specimens should be done. If possible, do specimens for both:</p> <ul style="list-style-type: none"> • Blocks, peds, and clods • Surface crusts and plates
Cycle step 3	Coaching the trainee, have the trainee describe and record rupture resistance as appropriate in the survey area.
Cycle step 4	Repeat Cycle step 3 without coaching.
Cycle step 5	During project activities, assign the trainee the task of describing and recording rupture resistance as soil descriptions are completed.
Cycle step 5	Answer any questions. Repeat any steps as necessary.

OJT Module Lesson Measurement of Learning

Title: **120 Soil Consistence: How to describe soil rupture resistance.**

WHAT	WHY, WHEN, WHERE, HOW, SAFETY, QUALITY
Describe rupture resistance routinely during project activities.	During project activities, assign this task to the trainee. Sign off on performance when target proficiency is achieved.

SF-182

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