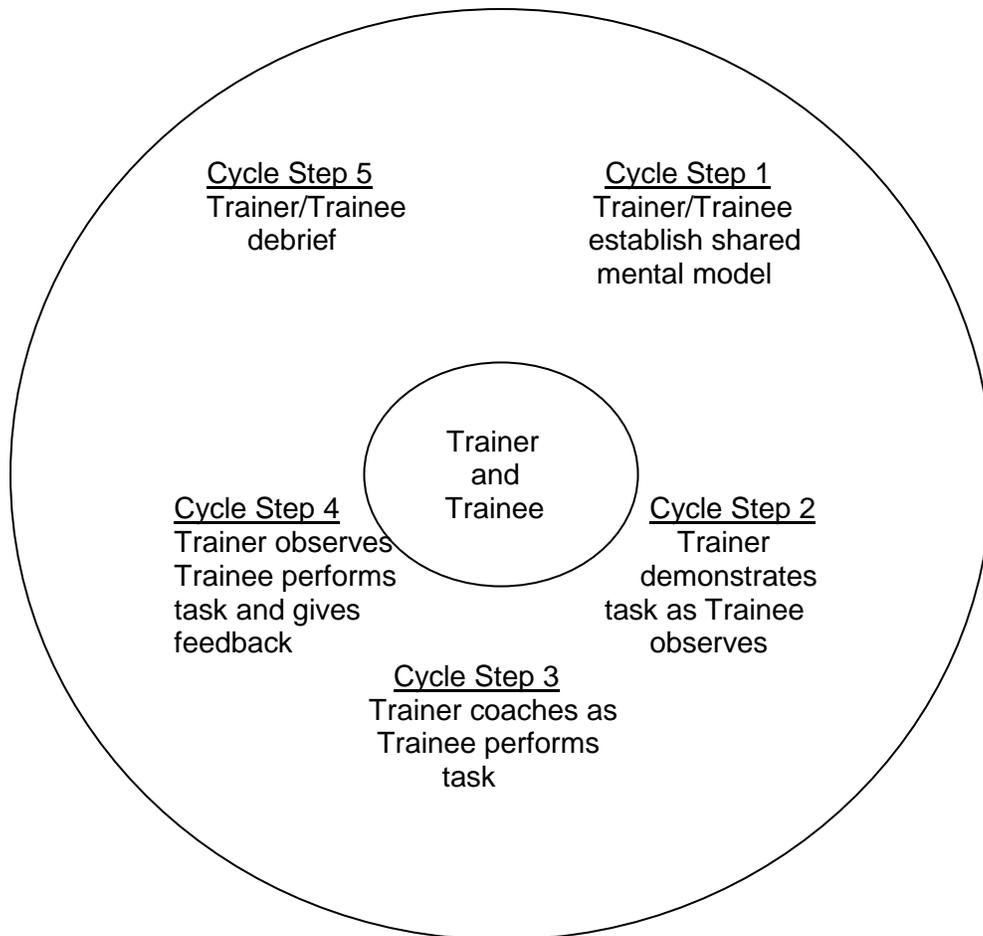


OJT Training Module Cover Sheet

Title: 205 How to identify the control sections of soils in your survey area.
Type: X Skill <input type="checkbox"/> Knowledge
Performance Objective: Trainee will be able to— <ul style="list-style-type: none">• Understand control sections and their purpose.• Explain the kinds of control sections.• Determine how to identify the control sections in local soils.• Classify control sections for soils common to the survey area.
Target Proficiency: <input type="checkbox"/> Awareness <input type="checkbox"/> Understanding X Perform w/ Supervision <input type="checkbox"/> Apply Independently <input type="checkbox"/> Proficiency, can teach others
Trainer Preparation: <ul style="list-style-type: none">• Brush up on control section purpose, kinds, and local use.• Have several local pedon descriptions and/or OSEDs available for use in exercises.
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: <ul style="list-style-type: none">• 201 How to use <i>Soil Taxonomy</i> and the <i>Keys to Soil Taxonomy</i>.• 202 How to use <i>The Guy Smith Interviews: Rationale for Concepts in Soil Taxonomy</i>.• 203 How to identify diagnostic horizons and characteristics of the higher categories.• 204 How to identify soil orders.
Notes: None
Authors: Joseph Chiaretti
Approved by: Marc Crouch

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



OJT Module Lesson

Title: 205 How to identify the control sections of soils in your survey area.	
WHAT	WHY, WHEN, WHERE, HOW, SAFETY, QUALITY
Cycle step 1	<p>The trainer and trainee review the objectives of this module. The trainer discusses with the trainee why understanding the control sections is important to properly using Soil Taxonomy.</p> <p>Trainee:</p> <ol style="list-style-type: none"> 1. Reviews the attached "Control Sections.pdf" file. 2. Reviews page 63, Question 12, Leamy, and <i>The Guy Smith Interviews: Rationale for Concepts in Soil Taxonomy</i>. 3. Reviews Chapter 17, Family and Series Differentiae and Names, of the current Keys to Taxonomy to locate control section information for each of the following: <ol style="list-style-type: none"> a. Particle-size classes and their substitutes b. Mineralogy classes c. Cation-exchange activity classes d. Calcareous and reaction classes e. Soil temperature classes f. Classes of coatings on sands g. Classes of permanent cracks h. Differentiation of series 4. Reviews Chapter 3, Horizons and Characteristics Diagnostic for the Higher Categories, for the following: <ol style="list-style-type: none"> a. Thickness of organic soil materials (control section of Histosols and Histels) b. Soil moisture regimes (control sections for soil moisture)
Cycle step 2	<p>Trainer, using a local soil pedon or OSED, should describe appropriate soil moisture regime control section; family control sections, based on classification; and the series control section. If organic soils are common in the survey area, use a local soil description or OSED and describe the control section and its tiers.</p>
Cycle step 3	<ol style="list-style-type: none"> 1. Trainer provides the trainee with a pedon description or OSED and asks the trainee to describe appropriate soil moisture regime control section; family control sections, based on classification; and the series control section. Trainer provides guidance as needed. 2. If organic soils are common in the survey area, provide a local soil description or OSED and ask the trainee to describe the control section and its tiers. 3. Provide a second or third description of mineral and/or organic soils if needed to develop skill.

Cycle step 4	Trainer provides the trainee with two or more pedon descriptions or OSEDs common to the survey area and asks the trainee to repeat cycle step 3 but without guidance.
Cycle step 5	The trainer discusses the results of the exercise. Review how various control sections are used at higher categories, families, and series levels. Move on to the module measurement of learning if ready.

OJT Module Lesson Measurement of Learning

Title: 205 How to identify the control sections of soils in your survey area.	
WHAT	WHY, WHEN, WHERE, HOW, SAFETY, QUALITY
Trainee's learning is measured.	Have the trainee complete the attached quiz to reinforce the concepts presented in this module.
Apply knowledge gained to current survey work.	The trainer provides several pedons from OSEDs or local descriptions and asks the trainee to provide family and series control sections for each.
Apply knowledge gained to current survey work.	As project work is completed, have the trainee provide family and series control sections for completed descriptions.

SF-182

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

Quiz

1. True or False? The control section depths for series differentiae are often wider than those for family differentiae.
2. Which of the following differentiae of the soil family use the same control section depths for determining class placement ?
 - A) Mineralogy
 - B) Moisture regime
 - C) Coatings on sands
 - D) Particle size
 - E) Cation-exchange activity
3. What is the PSCS for soils deeper than 36 cm and not Andisols, that have an argillic or natric horizon with a lower boundary at a depth of less than 25 cm below the mineral soil surface?
 - A) From the mineral soil surface to 100 cm or a root-limiting layer if shallower
 - B) The entire zone of the argillic or natric horizon
 - C) From the upper boundary of the argillic or natric horizon to a depth of 50 cm
 - D) From the upper boundary of the argillic or natric horizon to a depth of 100 cm below the mineral surface or a root-limiting layer
 - E) From the lower boundary of the argillic or natric horizon to a depth of 100 cm
4. The series control section for a soil with the bottom of the deepest diagnostic horizon at 135 cm is:
 - A) From the surface to 150 cm
 - B) From the surface to 200 cm
 - C) From 25 to 150 cm
 - D) From 25 to 200 cm
5. In general, the moisture control section used for higher categories for a course-loamy soil is approximately:
 - A) From 10 to 30 cm below the soil surface
 - B) From 20 to 60 cm below the soil surface
 - C) From 30 to 90 cm below the soil surface