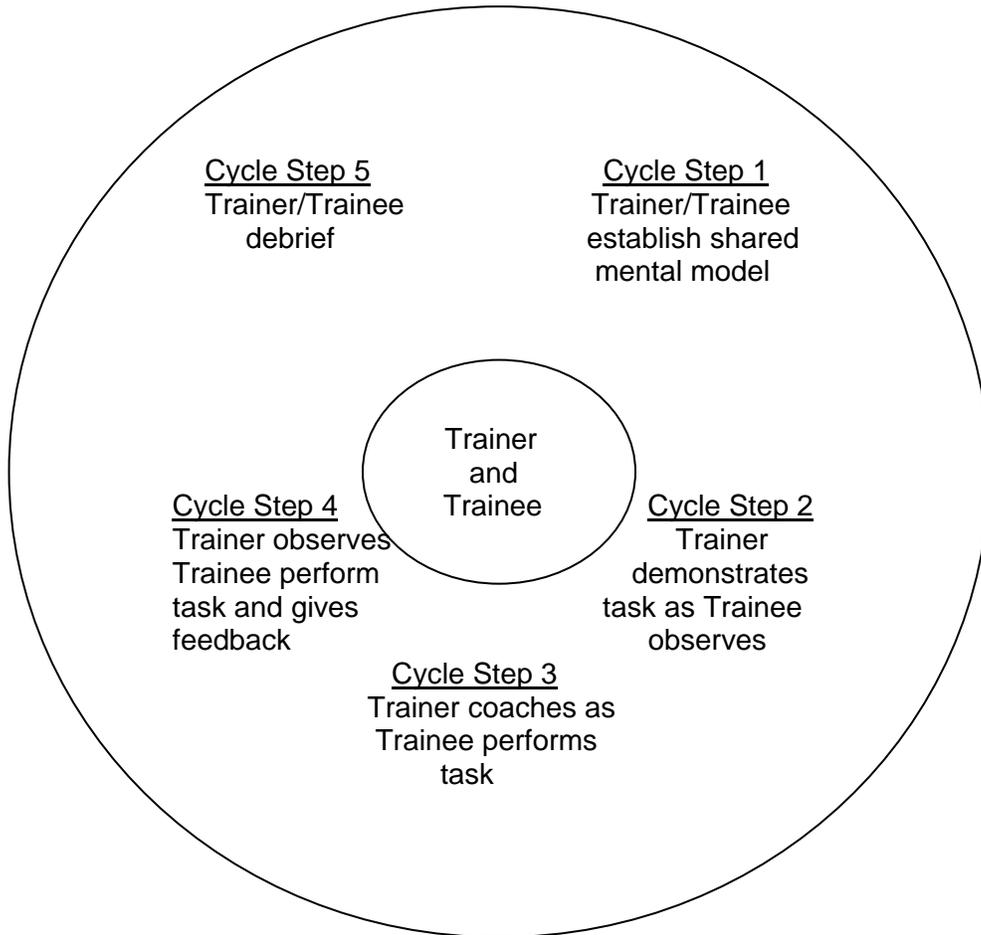


OJT Training Module Cover Sheet

Title: 419 How to do chemical analysis in the soil survey office.
Type: <input checked="" type="checkbox"/> Skill <input type="checkbox"/> Knowledge
Performance Objective: Trainee will be able to ... <ul style="list-style-type: none">• Prepare soil samples for chemical analysis.• Complete chemical analysis typical for the soil survey area.
Target Proficiency: <input type="checkbox"/> Awareness <input type="checkbox"/> Understanding <input type="checkbox"/> Perform w/ Supervision <input checked="" type="checkbox"/> Apply Independently <input type="checkbox"/> Proficiency, can teach others
Trainer Preparation: <ul style="list-style-type: none">• Trainer should be familiar with the assigned reading/review material in the lesson plan that follows.• Provide laboratory equipment and soil samples for exercise.
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">• 403 MSDS-Understand the purpose of the Material Safety Data Sheet for soil survey offices.• 404 MSDS-How to use the Material Safety Data Sheet for soil survey offices.
Notes: Because there are many soil and water chemical extractions and analyses that can be conducted in the soil survey office, it is recommended that the trainer limit the scope of this module to those analyses important to the office operation.
Authors: Shawn McVey
Approved by: Marc Crouch

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



OJT Module Lesson

Title: 419 How to do chemical analysis in the soil survey office.

WHAT	WHY, WHEN, WHERE, HOW, SAFETY, QUALITY
Cycle step 1	<p>Trainer and trainee review objectives of module and agree to limit this module to one or two chemical analyses selected from SSIR 51.</p> <p>Trainer and trainee access via the internet and read/review:</p> <ul style="list-style-type: none"> • Soil Survey Field and Laboratory Methods Manual, SSIR #51: <ul style="list-style-type: none"> ○ Soil and Water Chemical Extractions and Analysis <p>Trainer selects the chemical analyses typical for the survey area to be conducted.</p> <p>For areas that have carbonates, measuring carbonates with the volume calcimeter might be one example to use.</p> <p>Trainer should highlight all safety considerations and any interference of the methods associated with local soils.</p>
Cycle step 2	<p>Trainer demonstrates the procedures for assembling the laboratory apparatus, preparing and measuring the sample, and completing any required calculations and data plots. Demonstrate how to clean up apparatus and store any chemicals used per OSHA guidelines and the MSDS.</p>
Cycle step 3	<p>Trainer coaches the trainee in repeating the steps demonstrated above on a separate sample. Trainee should try to assemble the laboratory apparatus, prepare and measure a sample, and complete any required calculations and data plots for the chemical analysis being conducted. Clean up apparatus and store chemicals as needed.</p>
Cycle step 4	<p>Begin Measurement of Learning below.</p>
Cycle step 5	<p>Answer any questions. Repeat any steps as necessary.</p>

OJT Module Lesson Measurement of Learning

Title: 419 How to do chemical analysis in the soil survey office.

WHAT	WHY, WHEN, WHERE, HOW, SAFETY, QUALITY
<p>Give trainee a selected sample from which to obtain data. The trainee must:</p> <ul style="list-style-type: none">• Assemble any laboratory apparatus used.• Process the sample using appropriate methods.• Complete measurements accurately.• Clean up apparatus and store chemicals as needed.• Complete necessary calculations and data plots to determine answers.	<p>Trainee must be able to perform tasks independently and explain steps taken to achieve goals.</p>

SF-182

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