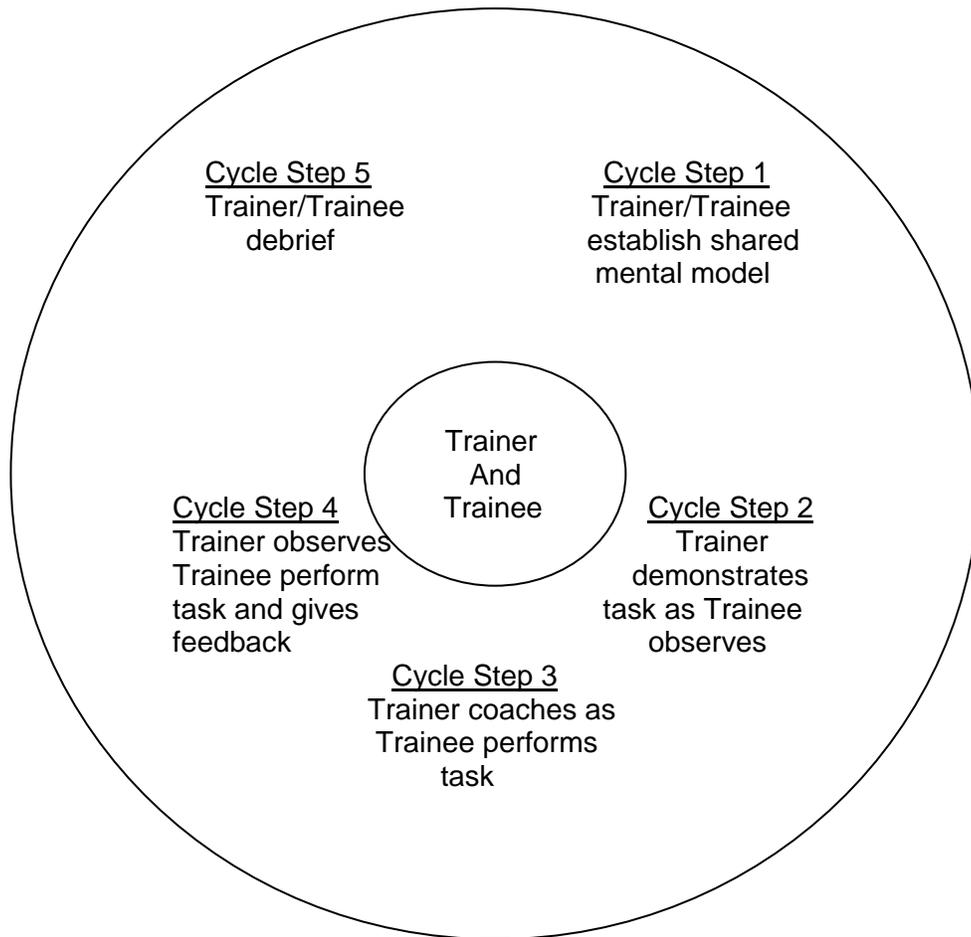


OJT Training Module Cover Sheet

Title: 1208 How to measure soil pH and its importance.
Type: <input checked="" type="checkbox"/> Skill <input type="checkbox"/> Knowledge
Performance Objective: Trainee will be able to ... <ul style="list-style-type: none">• Determine soil pH using hand-held meter and reagents.• Understand pH in relation to soil quality and interpretations.
Target Proficiency: <input type="checkbox"/> Awareness <input type="checkbox"/> Understanding <input checked="" type="checkbox"/> Perform w/ Supervision <input 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.• Trainer should ensure hand-held pH meter, if available, is in working condition and that pH reagents are fresh.• Assemble a variety of soils for demonstration and practice.• Have available the <i>Field Book for Describing and Sampling Soils</i>.
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: None
Notes: None
Authors: Shawn McVey
Approved by: Marc Crouch

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



OJT Module Lesson

Title: **1208 How to measure soil pH and its importance.**

WHAT	WHY, WHEN, WHERE, HOW, SAFETY, QUALITY
<p>Cycle step 1</p>	<p>Trainer and trainee should review the objectives of this module.</p> <p>Trainer and trainee read/review:</p> <ul style="list-style-type: none"> • the attached Soil Quality Indicators: pH SQI information sheet • Field Book for Describing and Sampling Soils (access via the internet or hardcopy): <ul style="list-style-type: none"> ○ Chemical Response <ul style="list-style-type: none"> ▪ Reaction (pH) <p>Discuss significance of pH to nutrient availability, micro-organisms, pesticide interaction in the soil, mobility of heavy minerals, and corrosivity to steel and concrete.</p> <p>Discuss the typical range of soil pH for the local area, and point out that measurements can change throughout the year. Discuss the class ranges used to group, report, and interpret soil pH. Be sure to include instruction on recording significant figures.</p>
<p>Cycle step 2</p>	<p>Trainer discusses the methods available in the office for measuring pH, such as pH meter for 1:1 (water: soil), CaCl₂, and NaF, as well as any dyes and/or paper strips available, which one is usually used in the field office, and when to use each.</p> <p>Trainer demonstrates proper use of methods available in the office, indicating how much sample to use as well as how much and what kind of water or reagent to use. Trainer demonstrates proper use of additional methods available to measure soil pH.</p>
<p>Cycle step 3</p>	<p>Trainer coaches trainee as trainee measures soil pH with available methods.</p>
<p>Cycle step 4</p>	<p>Trainer provides feedback as trainee independently measures soil pH using available methods. Use samples from correlation trays in the office to introduce a variety of pH that can be measured.</p>
<p>Cycle step 5</p>	<p>Trainer and trainee can debrief the exercise and answer any questions. To add interest, trainer may choose to discuss situations found elsewhere and</p>

	<p>how they are handled. If applicable to your area, discuss common soil features that produce specific ranges of pH values (Bk horizons, sulfuric horizons, etc.) and where in the soil profile these features can be expected to occur.</p>
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OJT Module Lesson Measurement of Learning

Title: 1208 How to measure soil pH and its importance.

WHAT	WHY, WHEN, WHERE, HOW, SAFETY, QUALITY
Trainer observes trainee measure soil pH.	Using collected samples, repeat pH measurements until trainer is satisfied that the trainee can independently use the method(s) and/or reagents available to him or her to measure soil pH.

SF-182

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