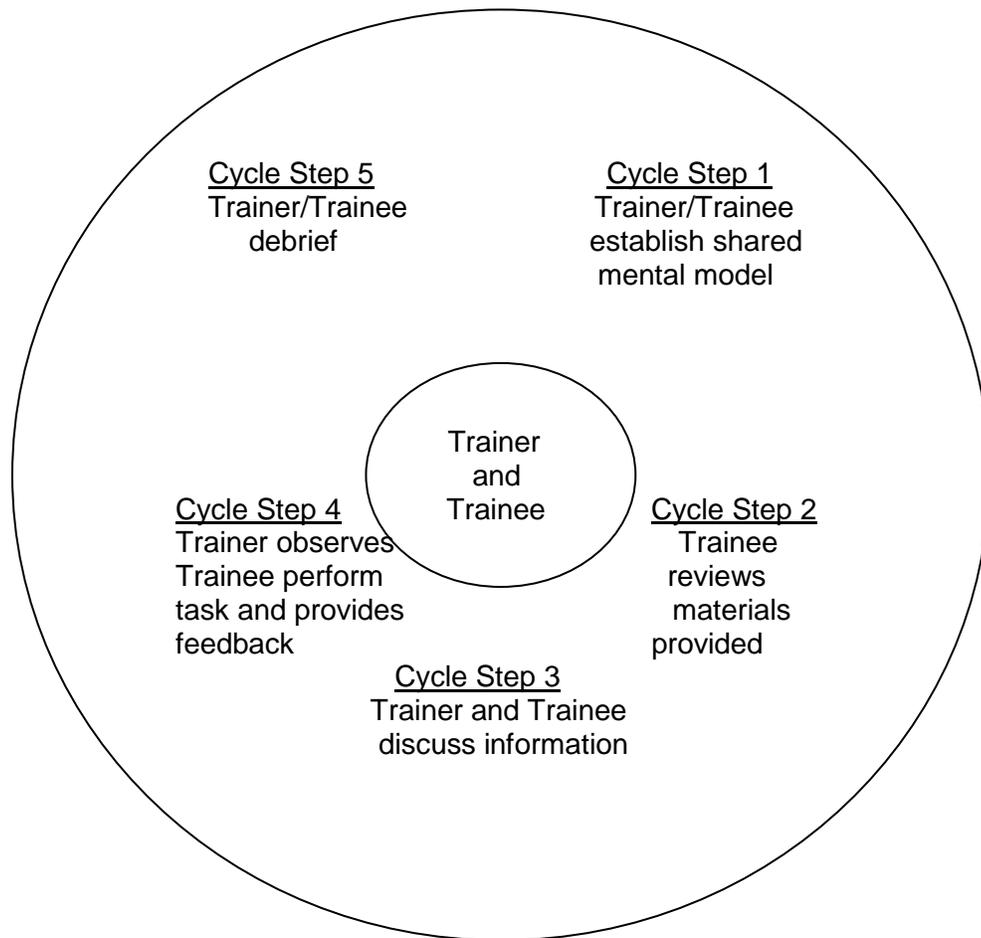


OJT Training Module Cover Sheet

Title: 821 Understand the uses of GPR for soil investigations.
Type: <input type="checkbox"/> Skill <input checked="" type="checkbox"/> Knowledge
Performance Objective: Trainee will be able to: <ul style="list-style-type: none">• Explain the types of soil investigations suited to GPR technology.• Apply the principles of GPR to soil investigations.
Target Proficiency: <input type="checkbox"/> Awareness <input checked="" type="checkbox"/> Understanding <input 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.• If possible, have several radar records and the associated soil descriptions on hand for interpretation.
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">• 802 Understanding GPR and how GPR works.
Notes: None
Authors: Jim Doolittle Wes Tuttle
Approved by: Shawn McVey

The Five-Step OJT Cycle for Declarative Training (Knowledge)



OJT Module Lesson

Title: 821 Understand the uses of GPR for soil investigations.	
WHAT	WHY, WHEN, WHERE, HOW, SAFETY, QUALITY
Cycle step 1	Trainee should have read the attached: What GPR is used for in soil investigations.pdf
Cycle step 2	Trainer and trainee do the following:
1. GPR uses in soil exploration.	Note that GPR is used to document the presence, depth, extent, and continuity of horizons or layers. Describe previous local uses of the technology, which might include buried drain tile or utilities, preferential flow paths, identification of hydrologic conditions, depth to bedrock, and cultural resource investigations.
2. Three-dimensional GPR.	Using locally derived GPR investigation reports, discuss the effectiveness and interpretive quality of 3D GPR output.
Cycle steps 3 and 4	Have the trainee explain GPR uses. Have the trainee participate in GPR investigations: operate the equipment, become familiar with GPR output, and recognize subsurface features.
Cycle step 5	Answer any questions. Repeat any steps as necessary.

OJT Module Lesson Measurement of Learning

Title: **821 Understand the uses of GPR for soil investigations.**

WHAT	WHY, WHEN, WHERE, HOW, SAFETY, QUALITY
Trainee's learning is measured.	Have the trainee complete the attached quiz to reinforce the concepts in this module.
Develop skill in using GPR by routinely assigning this activity 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.

Quiz

1. Compared with traditional soil survey tools, GPR is:
 - A) Is faster
 - B) Provides more comprehensive coverage
 - C) Is less labor intensive
 - D) All of the above

2. True or False? For depth to bedrock determinations, GPR has been found to be more accurate than traditional soil survey tools.

3. True or False? GPR can be used to determine the thickness and volume of peat lands.

4. Compared with two-dimensional radar profiles, three-dimensional GPR pseudo-images are more useful for characterizing:
 - A) The depth to stratigraphic layers
 - B) The geometry of subsurface features
 - C) The distribution of tree roots
 - D) The depth to bedrock
 - E) Only a and d
 - F) Only b and c