# OJT Training Module Cover Sheet

**Title:** 112 Texture-How to describe sand, silt, and clay in the soil.

<table>
<thead>
<tr>
<th>Type:</th>
<th>☑ Skill</th>
<th>☐ Knowledge</th>
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**Performance Objective:** Trainee will be able to …
- Estimate and describe sand, silt, and clay using field methods of the NCSS.
- Describe texture based on estimates of sand, silt, and clay according to NCSS guidelines.

**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, calibration samples, and/or 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.

**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.
- If you do not have texture calibration samples, you could ask the NSSL for appropriate samples for your survey area.

**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

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**Approved by:**
Shawn McVey
The Five-Step OJT Cycle for **Procedural** Training (Skill)

- **Cycle Step 5**: Trainer/Trainee debrief
- **Cycle Step 4**: Trainer observes, Trainee performs task and gives feedback
- **Cycle Step 3**: Trainer coaches as Trainee performs task
- **Cycle Step 2**: Trainer demonstrates task as Trainee observes
- **Cycle Step 1**: Trainer/Trainee establish shared mental model
<table>
<thead>
<tr>
<th>WHAT</th>
<th>WHY, WHEN, WHERE, HOW, SAFETY, QUALITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trainee should access via the internet and read Soil Survey Manual, Chapter 3 sections on Soil Separates and Soil Texture under Particle Size Distribution.</td>
<td></td>
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</table>
| Trainee should access via the internet and read National Soil Survey Handbook 618 sections on:  
- Particle-size  
- Texture Class, Texture Modifier, and Terms Used in Lieu of Texture | |
| Trainee should access via the internet and read Soil Survey Field and Laboratory Methods Manual, Soil Survey Investigations Report No. 51, version 1.0; section 3.2.1, pages 41-46, Feel Method. | |
| Access hardcopy or via the internet and review material about texture in the Field Book for Describing and Sampling Soils, focusing on the texture classes. (Texture modifiers are covered by the module about describing fragment size in soils.) | |
| Review attached Texture class flow chart.pdf. | |
| Point out to the trainee that there are separate modules to follow to help estimate sand sizes and to help make estimates based on kind of clay. | |
| Cycle step 2 | Do the following: |
| 1. Review what can be recorded according to the Field Book and SSM. | Note that texture class is usually recorded. Note that this module promotes estimating and recording field estimates for sand, silt, and clay separates which is necessary for NASIS population. |
| 2. Demonstrate how to estimate sand, silt, and clay. | Follow the Feel Method procedures in SSIR 51.  
Utilize the attached Soil texture flow chart.  
Provide your own tips for texturing to the trainee.  
Note to the trainee that estimating improves with experience and calibration. |
| 3. Demonstrate how to calculate and record texture. | Do this in the field using the textural triangle in the Field Book. Record on the 232 soil description form.  
Do this back in the office using the Interactive |
| Cycle step 3 | Coaching the trainee, have the trainee describe and record sand, silt, and clay and texture. |
| Cycle step 4 | Repeat cycle step 3 without coaching. During project activities, assign the trainee the task of estimating and recording sand, silt, and clay as soil descriptions are completed. |
| Cycle step 5 | Answer any questions. Repeat any steps as necessary. |
# OJT Module Lesson Measurement of Learning

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<td>Describe soil sand, silt, and clay and texture routinely during project activities.</td>
<td>During project activities, assign this task to the trainee. Sign off on performance when target proficiency is achieved.</td>
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**SF-182**

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