# OJT Training Module Cover Sheet

**Title:** 107 How to describe soil matrix colors.

**Type:** ☐ Skill  ☑ Knowledge

**Performance Objective:** Trainee will be able to...
- Describe and record soil matrix colors using the Munsell Soil-Color Charts and the *Field Book for Describing and Sampling Soils*.

**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 and field locations with pit, trench, road cut, or auger borings available.
- Have the Munsell Soil-Color Charts 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.

**Prerequisite Modules:**
- 101 How to use the *Field Book for Describing and Sampling Soils*.
- 102 How to fill out a 232 soil description form.
- 106 How to use the Munsell Soil Color Charts to describe soil colors.

**Notes:**
This module could be used in conjunction with the prerequisite modules listed above.

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

**Cycle Step 1**
Trainee/Trainee establish shared mental model

**Cycle Step 2**
Trainee demonstrates task as Trainee observes

**Cycle Step 3**
Trainee performs task as Trainee observes

**Cycle Step 4**
Trainee performs task and gives feedback

**Cycle Step 5**
Trainee/Trainee debrief
**OJT Module Lesson**

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<th>WHY, WHEN, WHERE, HOW, SAFETY, QUALITY</th>
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| **Cycle step 1** | Trainee should access via the internet and read:  
  - *Field Book for Describing and Sampling Soils* section on Soil Color-Matrix Color. |
| **Cycle step 2** | Do the following: |
| 1. Review definition of dominant (matrix) color. | This was part of the reading assignment in the SSM. Point out that this is determined with broken samples in most situations. |
| 2. Review conditions for measuring color. | This was part of the reading assignment in the SSM and prerequisite modules. Discuss light conditions and moisture content. |
| 3. Use a “broken” sample to demonstrate how to locate hue, value, and chroma on the charts. | Do this in the field. Demonstrate how you “acquire” a broken sample for description. |
| 4. Demonstrate how to add water to reach the appropriate moisture state for moist colors. | SSM reading assignment covers this. Discuss and demonstrate as needed. |
| 5. Demonstrate description of matrix color and matrix color location and/or condition. | Reference the Field Book and use the 232 soil description form. |

**Cycle step 3**
Coaching the trainee, have the trainee use the color charts to determine moist or dry (as appropriate in the survey area) matrix color in different situations as available for the training and as needed in the survey area. Complete this part of the 232 soil description form.  
- Single matrix color  
- 2 matrix colors – give percentage for each.  
- 3 or more matrix colors – give percentage for each.

**Cycle step 4**
Repeat cycle step 3 without coaching.

**Cycle step 5**
During project activities, assign the trainee the task of describing and recording matrix colors as soil descriptions are completed.

Answer any questions. Repeat any steps as necessary.
OJT Module Lesson Measurement of Learning

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<td>Use the soil-color charts to describe soil color.</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.