

# Eastman Nature and Wildlife Habitat Center

## Soil Detectives

\_\_\_\_\_

Your Name



### Site Survey Data Sheet

Date \_\_\_\_\_ Time \_\_\_\_\_

Location \_\_\_\_\_

Present Weather (Clear, Cloudy, Overcast or Raining) \_\_\_\_\_

Air Temperature \_\_\_\_\_ Celsius \_\_\_\_\_ Fahrenheit

Wind \_\_\_\_\_ (Which direction is the wind coming from?)



### Soil Temperature

Using a pencil or stick create a small hole approximately 6 centimeters deep. Place thermometer in the ground and remove after 2 or 3 minutes. Record your data below.

#### Test Site #1

Soil Temperature \_\_\_\_\_ Celsius \_\_\_\_\_ Fahrenheit

#### Test Site #2

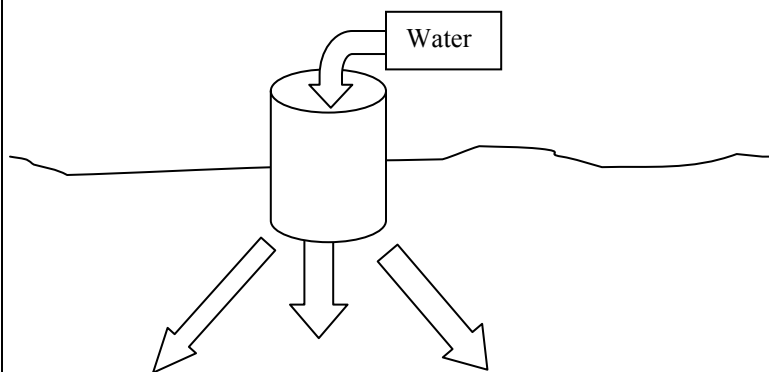
Air Temperature \_\_\_\_\_ Celsius \_\_\_\_\_ Fahrenheit

#### Test Site #3

Air Temperature \_\_\_\_\_ Celsius \_\_\_\_\_ Fahrenheit

### Soil Percolation Test

Cut the top and bottom off a large coffee can. Pound 1/4 of a can into the ground. Start a timer and pour 1-gallon of water into the can. You might have to wait a few minutes before you can add more water. Stop the timer when all of the water is absorbed into the soil. Record your data.



#### Test Results

It took \_\_\_\_\_  
minutes for my site to absorb  
1 gallon of water.



### Outdoor Classroom Soil Sample

Collect a soil sample 5 centimeters below the surface. Pour 1 cup of soil into a clear 1 quart plastic bottle and fill with 3 cups of water. Shake for 5 minutes and allow the soil sample to settle. Leave the bottle on the wooden seats and return later in the day to estimate the percent of sand, silt and clay.

#### My Soil Sample

\_\_\_\_\_ % Clay

\_\_\_\_\_ % Silt

\_\_\_\_\_ % Sand



### Forest Soil Sample

Collect a soil sample 5 centimeters below the surface. Pour 1 cup of soil into a clear 1 quart plastic bottle and fill with 3 cups of water. Shake for 5 minutes and allow the soil sample to settle. Leave the bottle on the ground and return later in the day to estimate the percent of sand, silt and clay.

#### My Soil Sample

\_\_\_\_\_ % Clay

\_\_\_\_\_ % Silt

\_\_\_\_\_ % Sand

## Creek Soil Sample

Collect a soil sample 5 centimeters below the surface. Pour 1 cup of soil into a clear 1 quart plastic bottle and fill with 3 cups of water. Shake for 5 minutes and allow the soil sample to settle. Leave the bottle on the ground and return later in the day to estimate the percent of sand, silt and clay.

### My Soil Sample

\_\_\_\_\_ % Clay

\_\_\_\_\_ % Silt

\_\_\_\_\_ % Sand



## A Closer Look

Using a hand lens or loupe, investigate the color and texture of soil at the classroom area, forest and creek soil-sampling sites. Answer the following questions.

### Test Site #1

What is the color of your soil? \_\_\_\_\_

My soil feels like (Circle One)

**Sand** (Gritty)

**Silt** (Flour)

**Clay** (Sticky)

### Test Site #2

What is the color of your soil? \_\_\_\_\_

My soil feels like (Circle One)

**Sand** (Gritty)

**Silt** (Flour)

**Clay** (Sticky)



## A Closer Look

Using a hand lens or loupe, investigate the color and texture of soil at the classroom area, forest and creek soil sampling sites. Answer the following questions.

### Test Site #3

What is the color of your soil? \_\_\_\_\_

My soil feels like (Circle One)

**Sand** (Gritty)

**Silt** (Flour)

**Clay** (Sticky)

### Test Site #4

What is the color of your soil? \_\_\_\_\_

My soil feels like (Circle One)

**Sand** (Gritty)

**Silt** (Flour)

**Clay** (Sticky)

## Soil pH

Use an inexpensive garden soil pH test kit to evaluate your soil. Record your data.

Test #1 The pH of my soil is \_\_\_\_\_

Test #2 The pH of my soil is \_\_\_\_\_

Test #3 The pH of my soil is \_\_\_\_\_

## Test Site #1 Map

Draw an aerial view of the soil test sites.

## Test Site #2 Map

Draw an aerial view of your soil test sites.

## Test Site #3 Map

Draw an aerial view of your soil test sites.

## Journal

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## Journal

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