

SQUARE METER STUDY
Location: Table Rock State Park

Date _____ Student Ecologist(s) _____

1. **Observe** your square meter. Use the magnifying box and hand lens to examine objects, plants, or critters. Pick up some soil to feel it. Describe the forest floor within your square.

Color: _____ Sunny or shaded: _____

Moist or dry: _____ What can be seen in it: _____

2. **Classify** what you find. How many of each of these are in your square meter?

Live plants _____ Animals _____ Branches _____ seeds or nuts _____ Rocks _____ Other _____

Which of these groups are abiotic? _____

Which is an example of a producer? _____ of a consumer? _____

Do you see a fungus among us? (white mold, slime mold, or mushroom)? _____

Let's get more specific and total the number of each:

Animal name (or description)	how many?	Plant name (or description)	how many?
1.	_____	1.	_____
2.	_____	2.	_____
3.	_____	3.	_____
4.	_____	4.	_____

3. **Measure** the temperature and the pH (acidity). *Note: in a team of three, each person does only one kind of measurement: soil temperature, air temperature, or pH test.*

Before you begin, do you predict that the *soil temperature* will be higher or lower than the *air temperature*? _____

1. *Soil temperature*: Stick soil thermometer (thin metal stick with big round top) about 2-3 inches into the soil for 2 minutes. Record soil temperature _____

2. *Air temperature*: Hold the thermometer in the blue case up at shoulder height, for 2 minutes. Record air temperature _____

3. *Soil pH measurement*: The trail leader will go to each group and use a pH meter to test the soil with the students. When the test is complete, record the soil pH number _____

4. Every animal is perfectly designed to live in a certain place called its habitat. Pick one animal you saw today in the forest. Type of animal: _____

What can you ***Infer*** about this animal as to what its habitat needs are?

For example: Does it prefer sunlight or shade? _____ Moist or dry areas? _____

What layer of the forest does it live? _____ What do you think it eats? _____

Do you think it has any other important habitat needs? _____

What do you think this animal's niche is in the forest? _____

What is a possible food chain using the plants and animals you saw today?

5. ***Predict*** some changes that will take place at your square meter in the next 10 years, as plants grow, etc.

Use this space to draw your favorite animal or plant that you found inside your square.