

Name _____

Explaining a Soil Profile

Part One: Matching

Instructions: Match the term with the correct definition.

- | | |
|------------------|---------------|
| a. soil profile | f. subsoil |
| b. translocation | g. eluviation |
| c. substratum | h. topsoil |
| d. solum | i. losses |
| e. illuviation | j. additions |

- _____ 1. Area where most plant roots grow
- _____ 2. The C horizon, usually composed of the parent material of the soil and has had little soil forming activity
- _____ 3. A vertical cross-section of the soil
- _____ 4. Process of materials moving within the soil horizons
- _____ 5. The accumulation of chemicals, clay, iron, and other materials in the B horizon
- _____ 6. Often referred to the B horizon
- _____ 7. Materials such as fallen leaves, wind-blown dust, or chemicals from air pollution that accumulate in the soil
- _____ 8. Materials leach or erode from the soil
- _____ 9. The loss of clay, iron, and other materials over time due to leaching
- _____ 10. The surface layer where organic matter accumulates

Part Two: Multiple Choice

Instructions: Write the letter of the correct answer.

- _____ 1. As materials such as organic matter and minerals are altered in the soil, this process is called _____.
- a. additions
b. losses
c. translocations
d. transformations
- _____ 2. What is a term sometimes used for the A horizon?
- a. illuvium
b. subsoil
c. substratum
d. topsoil
- _____ 3. What is the primary composition of the O horizon?
- a. clay
b. iron
c. organic matter
d. silt
- _____ 4. Which horizon is underlying bedrock, such as limestone, sandstone, or granite?
- a. O
b. B
c. C
d. R

_____5. Which horizon is best suited for growth of plant roots?

- a. A
- b. B
- c. C
- d. E

Part Three: Short Answer

Instructions: Complete the following.

1. Draw a soil profile and label each of the three major horizons.

2. Explain how “losses” might occur that will cause a change in the soil profile.

3. Explain how the A horizon is different from the C horizon in terms of color and content.