



Module 3: Soil Science & Soil Health

Lesson A Quiz: Soil Fundamentals

QUIZ LINKS:

[Module 3 Lesson A Quiz - Responder Link](#)

Multiple Choice

Select the correct definition of “soil health”:

- A. Soil health means the amount of fertilizer a soil can hold before nutrients are lost.
- B. Soil health means the continued capacity of soil to function as a vital living ecosystem that sustains plants, animals, and humans.
- C. Soil health is the ability of soil to grow crops without adding any outside inputs
- D. Soil health is the natural color, texture, and smell of the soil that shows if it is fertile.

What is the difference between soil and dirt?

- A. Soil contains structure and has pores; dirt is soil that is out of place.
- B. Soil is sterile, while dirt contains living microbes.
- C. Soil is found only in farms, while dirt comes from urban or construction areas.
- D. Soil is rich in sand, while dirt is made mostly of clay and silt.

Why is it important for soil aggregates to create pore space?

- A. Allows roots to avoid soil organisms that might damage them.
- B. Prevents rainfall from entering too quickly and drowning plants.
- C. Air and water move around, roots can breathe, and microbes can thrive
- D. It keeps soil particles from sticking together permanently.

Decrease in erosion means ____ in infiltration.

- A. Increase
- B. Decrease
- C. No change
- D. More runoff

Why is maximizing biodiversity above important for below?

- A. It makes plants grow taller so they shade out weeds.
- B. It keeps soils cooler by preventing direct sunlight.
- C. It increases nitrogen fertilizer efficiency for crops.
- D. There is a decrease in pest and disease and increase in cycling, making steadier profits.

When there is healthy soil, water infiltration ____ increases, and erosion/runoff ____.

- A. Decreases, increases
- B. Increases, decreases
- C. Stays the same, decreases
- D. Decreases, stays the same

If soil is too alkaline...

- A. Plants will have excess phosphorus and potassium.
- B. Plants will show symptoms of nitrogen toxicity.
- C. Plants will have a Fe/Zn deficiency.
- D. Plants will grow faster but produce fewer seeds.

True or False

There are three soil textures: sandy, silty, and fine.

Short Answer

Why is healthy soil important for both plants and the environment? Include at least two reasons in your answer.

Answer should:

- Explain at least two reasons why healthy soil is important.
- Include how soil health affects both plants (growth, nutrients, roots) and the environment (erosion, infiltration, biodiversity).
- Be a minimum of 2-3 sentences.

Short Essay

Explain how soil health affects water movement, erosion, biodiversity, and nutrient availability. In your answer, discuss why soil is more than just “dirt” and how healthy soils support both plants and the environment.

Answer should:

- Describe how healthy soil improves water infiltration and reduces erosion.
- Explain how biodiversity above and below ground supports plant growth, pest control, and nutrient cycling.
- Discuss the difference between soil and dirt, emphasizing soil’s structure and living ecosystem.
- Mention the importance of nutrient availability (e.g., Fe/Zn deficiency if soil is too alkaline).
- Be at least 4-5 sentences in length minimum, with specific examples from the prompt.