

Planting and Soil Management Quiz

Total questions: 15

Worksheet time: 8mins

Name Class Date

1. Which three resources do plants need in the soil for proper growth?
 - a) Air, available moisture, and mineral nutrients
 - b) Standing water, clay, and sunlight
 - c) Silt, fertilizer, and shade
 - d) Sand, roots, and compost
2. Which soil type contains a combination of clay, silt, and sand?
 - a) Clay soil
 - b) Loam soil
 - c) Peat soil
 - d) Sandy soil
3. What is the main problem associated with clay soils?
 - a) Poor drainage
 - b) Too much air
 - c) Lack of mineral nutrients
 - d) Excessive evaporation
4. What happens to sandy soil when it is squeezed into a ball and released?
 - a) It quickly falls apart
 - b) It becomes gummy
 - c) It remains firmly packed
 - d) It absorbs standing water
5. What type of container should be used to collect soil for a soil test?
 - a) A wooden flower box
 - b) A glass vase containing water
 - c) A metal watering can
 - d) A clean non-metal container
6. A gardener wants soil that retains nutrients and water while still allowing air to reach plant roots. Which soil should the gardener select?
 - a) Loam
 - b) Pure clay
 - c) Dry sand
 - d) Loose gravel
7. A soil sample is rock hard when dry and gummy when wet. Based on the text, how should the soil be classified?
 - a) Sandy soil
 - b) Loam soil
 - c) Silt-free soil
 - d) Clay soil
8. A gardener waters a plot, but the water sinks quickly and the soil dries within a few days. Which adjustment would most directly address the soil's likely weakness?
 - a) Compact the soil more tightly
 - b) Increase the amount of standing water
 - c) Remove all mineral nutrients
 - d) Add material that improves moisture retention

9. A lawn contains a steep knoll and a low area. What is the most appropriate soil-testing procedure?
- a) Collect one sample from the center of the entire lawn
 - b) Test the two areas separately
 - c) Sample only the low area
 - d) Mix soil from both areas before collecting it
10. At what depth should separate samples be taken from individual areas?
- a) Ten to twelve inches
 - b) Six to seven inches
 - c) One inch
 - d) Three to four inches
11. A gardener combines soil from a sandy area and a clay area into one container. Why could this procedure produce misleading test results?
- a) The soil must be collected only after planting
 - b) Different areas may have different soil types and should be evaluated separately
 - c) Sandy soil cannot be placed in a container
 - d) Clay particles destroy all mineral nutrients during mixing
12. A plant's roots are frequently suffocating because water remains in the soil. Which explanation best connects the soil condition to the problem?
- a) Mineral nutrients force roots to grow above the soil
 - b) Loam prevents water from entering the root zone
 - c) Sandy particles create too much air and remove all oxygen
 - d) Clay particles are tightly packed, reducing air space and slowing drainage
13. A gardener has two fields: Field X drains rapidly and loses nutrients, while Field Y holds water but has very little air space. Which field is more likely to be loam, and why?
- a) Neither description clearly matches loam, which should balance retention with air space
 - b) Neither field, because loam cannot contain clay or sand
 - c) Field Y, because water retention alone defines loam
 - d) Field X, because rapid drainage proves it contains balanced soil
14. A lawn includes sandy soil, clay soil, and an area of old sod. What sampling plan would provide the most reliable basis for deciding where to plant?
- a) Sample only the area that appears easiest to dig
 - b) Combine equal amounts from all areas into one unlabeled container
 - c) Collect separate samples from each distinct area, mix each area's soil independently, and label the containers
 - d) Take one deep sample from the oldest section
15. A gardener wants to establish a planting area that will support growth over several seasons. Which decision best follows the text's recommendations?
- a) Use only sandy soil because air is more important than moisture
 - b) Skip testing and choose the wettest location
 - c) Choose a location first, then test its soil to identify conditions that may require correction
 - d) Plant immediately in clay because its nutrients cannot be lost

Answer Keys

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| 1. a) Air, available moisture, and mineral nutrients | 2. b) Loam soil | 3. a) Poor drainage |
| 4. a) It quickly falls apart | 5. d) A clean non-metal container | 6. a) Loam |
| 7. d) Clay soil | 8. d) Add material that improves moisture retention | 9. b) Test the two areas separately |
| 10. b) Six to seven inches | 11. b) Different areas may have different soil types and should be evaluated separately | 12. d) Clay particles are tightly packed, reducing air space and slowing drainage |
| 13. a) Neither description clearly matches loam, which should balance retention with air space | 14. c) Collect separate samples from each distinct area, mix each area's soil independently, and label the containers | 15. c) Choose a location first, then test its soil to identify conditions that may require correction |