What I Know About Soils!

Select the best answer for the following questions.

1. Which of the following have a connection to the soil?
   a. plants
   b. animals
   c. people
   d. all of the above

2. An average soil is 45% mineral matter, 25% air, 25% water, and 5% organic matter. Label the graphs on the lines provided below to show these percentages.

3. An average soil is 50% water and air. What is the other 50% made of?
   __________  __________  and  __________  __________

4. Match the letter to the correct profile description:
   a. topsoil  ____ middle layer where some animals make their homes
   b. subsoil   ____ organic matter is found in this “live” zone.
   c. parent material  ____ broken up pieces of bedrock

5. Circle all the factors that create soil.
   parent material  plants  animals  computers  cars  slope

6. A soil that is hard when dry, but sticky when wet is mostly made of ____________.
   a. sand
   b. silt
   c. clay
   d. organic matter
7. Which is the largest particle?
   a. sand  
   b. silt  
   c. clay  
   d. loam

8. A mixture of sand, silt, and clay is said to be ______________.
   a. an organic soil  
   b. mud  
   c. a loam  
   d. stirred up

9. Which soil would pack together in clods and allow little air and water into the soil?
   a. sandy loam  
   b. silt loam  
   c. clay loam  
   d. gravel soil

10. Circle all the statements that are true about the Dust Bowl.
    it was during the 1930s  
    farmers had to move  
    they had no cars  
    weather was part of the problem  
    it is a football game  
    Utah had its own dust bowl  
    dust from topsoil covered many states  
    farmers began to learn about conservation

11. If you were looking for a book on soil conservation the book with the most information would be...
    a. The World of Water  
    b. Methods for Controlling Erosion  
    c. Weeds of Utah  
    d. Vegetable Growing

12. Circle all the statements that are true about organic matter.
    it changes silt to sand  
    it allows soils to drain  
    it is food for bacteria and fungi  
    it increases the nutrients in the soil  
    floats on water, but eventually gets soaked and holds water  
    makes soil more rocky

13. The texture of silt is smooth. Clay may feel smooth at first but becomes ______________.
    a. gritty  
    b. brittle  
    c. loose  
    d. sticky

14. Circle all the statements that are true about why farmers produce more today than 25 years ago.
    better machinery  
    more sunlight today  
    new types of clay have been discovered  
    scientists have developed more productive plants  
    new crop protection chemicals  
    farmers know more about soil conservation
Answers to “What I know about soils!”

1. d
2. check labeling
3. mineral matter and organic matter
4. b, a, c
5. all except cars & computers
6. c
7. a
8. c
9. c
10. all except “it’s a football game” & "they had no cars"
11. b
12. all except “it changes silt to sand” & "makes soil more rocky"
13. d
14. all except “more sunlight” & "new types of clay discovered"