**FYS207 Earth Corps Week 6 Reading Review Questions Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Part 1. Mollison Chapter 8 Soils**

<https://people.wou.edu/~taylors/FYS207_WOU_Earth_Corps/text/Text_Ch8_Soils.pdf>

Read the chapter and answer the following review questions. Provide sketches or images, as required. Use your favorite internet search tools to augment your readings, and answer the questions below.

1. Read the introductory paragraphs on p. 182. Cite several of the author’s annoyances with the traditional study of soil science.
2. Describe the difference between a “residual soil” vs. a “transported soil”.
3. List several of the author’s examples of where soils are conserved or increased in value as a natural resource.
4. After reading p. 183, briefly summarize the ethical imperative for soil conservation as part of the permaculture movement.
5. List and briefly discuss (1-2 sentences) 5 environmental, health or nutritional issues associated with soil degradation on planet earth.
6. List 8 characteristics of soils that are used in soil classifications.
7. From p. 186, what are the five basic components of soils on planet Earth.
8. List the three basic soil nutrients available to support plant growth.
9. Examine Figure 8.3 on p. 188-189, that shows a cut-away cross section of the Earth’s surface showing the distribution of soils across the landscape.
   1. True or False: soils are very similar in composition and appearance across all parts of the landscape.
   2. True or False: soils have varying thickness across the landscape, depending on position relative to hillslopes (uplands) and valley bottoms.
10. Review the quick overview of the periodic chart on p. 190 to 194. List your five favorite elements with a brief statement of why; list your five least favorite elements with a brief statement why.
11. Describe the concept of pH and how it is used to distinguish between acid and alkaline soils.
12. What is “humus” in soil, and why is it important?
13. Examine Table 8.6 showing the composition of soils. Summarize the 5 principle components of soils.
14. Why is “soil crumb” valuable in soils.
15. List five types of organisms that dwell in soils and form part of the food web.
16. Read over p. 213. List examples of crops that are alkaline vs. acid soil tolerant; and what they like to grow in productively.
17. List three problems with compacted clay soils.
18. Provide three examples of permaculture techniques that can be used to stabilize soil and increase soil fertility.

**Part 2. Text Reading: Soil – Living Organisms**

<https://people.wou.edu/~taylors/FYS207_WOU_Earth_Corps/Morrow_Chap6_Soils.pdf>

Read the chapter and answer the following review questions. Provide sketches or images, as required. Use your favorite internet search tools to augment your readings, and answer the questions below.

1. List the three ethical tasks of permaculture design associated with soil.
2. List 5 negative results associated with not attending to soil health on planet earth.
3. Examine Figure 6.6. List 4 strategies for repairing and rehabilitating soils.
4. Review the soil characteristics table on p. 70; what do the following soil colors indicate about composition:
   1. Red Soil
   2. Black Soil
   3. Yellow Soil
5. True or False: Soil is essential for terrestrial (non Marine life) on planet Earth.