**FYS207 Earth Corps Week 3 Reading Review Questions Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Part 1. Mollison Chapter 4 Patterns in Natura**

<https://people.wou.edu/~taylors/FYS207_WOU_Earth_Corps/text/Text_Ch4_PatternUnderstanding.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. Based on the chapter introduction, provide some examples of patterns in nature that surround us on a daily basis.
2. Explain how are patterns in nature used in permaculture design of sustainable living systems.
3. Examine Figure 4.1 in the text chapter, draw and label a sketch of three fundamental patterns in nature that are commonly used in permaculture design.
4. Using internet search tools, define the following terms as used in analytical geometry, provide an image for each to illustrate your answer:
   1. Tesselation
   2. Matrix
   3. Crenulation
   4. Lobate
   5. Mosaic
   6. Fractal Patterns
5. Cite the “Golden Rule of Design” in permaculture.
6. Draw a sketch to show the difference between spiral design patterns and overbeck jet models.

**Part 2. Text Reading: Ecology – Life’s Networks**

<https://people.wou.edu/~taylors/FYS207_WOU_Earth_Corps/Ecological_Relations_Cycles_Energy.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. Cite the “Ecological Imperative” model of human interaction with planet Earth.
2. List the ecological design aims of Permaculture
3. Describe the concept of a “closed system”.
4. Provide two to three sentences describing the Gaia Theory of Lovelock.
5. Draw and label a sketch of the nitrogen cycle, showing the transfer of nitrogen from the atmosphere to the soils.
6. Describe the concept of an ecotone
7. Describe the term “Guild” and how it is used in permaculture.
8. What is your favorite food for dinner, and list the primary ingredients. Discuss which plants and animals are necessary for the production of your favorite dinner food.