**Principles of Plant Science and Hydroculture**

**Every Day:**

Continue your journal: Each day write one paragraph about everything you did involving agriculture.

**04/02/2020 – 04/03/2020**

Standard 4: Evaluate, citing specific textual evidence, the physical and chemical properties of soils in an informative text. Perform technical procedures to classify soils by evaluating biotic and abiotic factors such as soil pH, texture, permeability, and water holding capacity. Interpret test results to identity deficiencies and formulate appropriate corrective actions.

Lesson: Dig 3 samples of soil, 7 inches deep (with permission). First, document all living organisms that you can see in the soil that you sample. Second, place the soil in a location that it can be further examined. Third, separate the soil based on color and record estimated percentages of each color. Fourth, separate soil based on organic matter and inorganic matter and record estimated percentages of each. Last, review our class notes about the texture of soil, is the soil you collected sandy, loamy or clayey? Record that information as well. This lesson will be completed after this last step.

**04/06/2020 – 04/09/2020**

Standard 5: Describing factors that influence soil quality and erosion. Assess the extent to which reasoning and evidence presented in news articles or case studies support the use of a specific soil conservation practice for maintaining healthy growing media for plants.

Lesson: Watch the following YouTube video: <https://youtu.be/im4HVXMGI68>

Find three examples of soil erosion around your home. Document the examples with pictures. Identify if the erosion occurred by water or wind. Last, write a paragraph using news articles or case studies on particular conservation practices that can save the soil around your home.

**04/13/2020 – 04/17/2020**

Standard 7: Integrate print and digital sources to create a model depicting the parts of plant cells. Examine the structure and outline the functions of plant cell organelles.

Lesson: Draw a detailed model of a plant cell. Label all of the organelles. Also list all of the organelles’ functions.

**04/20/2020 – 04/24/2020**

Standard 8: Analyze plant anatomy and physiology and relate key concepts to the processes and requirements involved in plant growth and productivity.

Lesson: Draw and label the anatomy of a plant. Include flowers, fruit, and seeds. Describe how each part plays an important role in plant growth, landscaping, food and/or fiber.

Let the above dates serve as a guideline only. The deadline for this work is Monday, April 27, 2020. You may turn in work at anytime by email or text. If you have any questions or concerns, I will be available Monday – Friday, 8:00 a.m. – 3:00 p.m., except Friday, April 10, 2020.

My contact information is as follows:

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Sincerely,

J.D. Estep