Main Lesson Book Structure

Organize your book around the central questions and themes from this block. Use the following outline, if you wish, as your guide.

1. How did life begin?
   1. Why may we never know for sure?
   2. What are the best hypotheses?
   3. What evidence do we have?
   4. What are the main properties or characteristics of life?
   5. How are the factors of emergence and self-organization involved?
   6. How do the results from Lab #1 correlate with the Abiogenesis hypothesis?
   7. What results has current research yielded to support Abiogenesis?
2. How and why do the complex organizational patterns of life arise and increase?
   1. How is geological time organized and why?
   2. What are the basic characteristics of prokaryotes?
      1. What are the differences between Archea and Bacteria?
      2. What are the various ways prokaryotes obtain energy?
      3. How do prokaryotes reproduce and exchange genetic information?
      4. Incorporate your observations on prokaryote evolution from lab #2.
   3. How did eukaryotic cells arise?
      1. Explain how changing conditions on earth resulted in the emergence of the eukaryotic cell. What evidence do we have for our ideas on how eukaryotic cells came to be?
      2. What are the basic characteristics of eukaryotic cells?
      3. How do eukaryote protists reproduce? Example?
      4. Highlight examples of protists form and behavior from the lab #3
   4. What set of circumstance led to the Cambrian explosion?
      1. Characterize the Cambrian explosion. Why is it considered such a significant event in evolution?
      2. How did the first multicellular organisms come into being? Why?
      3. What animal forms/phyla came into being at this time?
3. What was the first animal? How do we know?
   1. Describe the basic characteristics of the Porifera phylum.
   2. Incorporate observations from your lab work with the Porifera phylum .

\*\*\*\* This should get you a good start. I’ll fill out the rest of this as the block progresses.

1. What are the patterns/links of commonality between animal phyla/groups?
2. Where did human beings come from?
3. What is our purpose, as human beings, in the animal kingdom?
4. Are we animals? If not, what distinguishes us?
5. How can we harmonize our actions and systems with those of nature?