TEST #2 – section 1
Oct 28, 2015

1. Let's start this test by talking about the Moon.
    a) What is our best model for the formation of the Moon? Describe it briefly.
    b) What are the pieces of evidence that testify to this model?
    c) How old is the Moon? Is the surface all of the same age? How do we know?
2. What part of Earth's interior is responsible for tectonic plate activity? What is happening? How did we learn about it?
3. What is artificial selection and how does it compare to natural selection? What do the two have in common, and what is crucially different? Provide three examples of artificial selection.
4. Explain the structure of DNA.
5. ^{13}N decays into ^{13}C with a half-life of 9.965 minutes.
    a) Is this an α, β or γ process? Explain why by explaining *only* the chosen process.
    b) How much ^{13}N remains after 1 hour?
    c) After what time will there be 99% ^{13}C?
    d) Is ^{13}N decay practical for dating artifacts from ancient human history? Why?
6. Explain in detail the process and the timescale of climate regulation by the carbon dioxide cycle.