Rock Pocket Mouse

1. The Valley of Fire, New Mexico underwent a terrestrial change 1000 years ago.
2. Describe the change:
3. Did primary or secondary succession happen after the change? Why?
4. Camouflage is a trait. Describe the role of alleles in determining this type of trait for organisms.
5. A. Analyze when the light versus dark trait is beneficial or harmful to the rock pocket mouse? Provide evidence.

B. Compare to the moths after the industrial revolution.

1. A. Construct an energy pyramid including the rock pocket mouse

B. Determine the importance of sustaining the mouse population.

1. Analyze why mostly dark mice live on the dark rock.
2. What drives the evolution of the pocket mouse color?
3. The role of a mutation in a population depends on:
4. Fur color is a polygenic trait. Describe human traits that are polygenic and explain why the traits are polygenic.
5. The Mc1R gene plays what role in the current pocket mouse population?
6. Analyze why the mutation that coded for dark fur in the mouse population spread so quickly.
7. Only one aspect of evolution is “random”. Analyze the random versus nonrandom aspect of evolution using the pocket mouse as an example.
8. Do you think any other traits of the pocket mouse has evolved with the terrain change? Defend your answer.