1. What term refers to the measure of how common a certain allele occurs in a population?

*Allele Frequency*

1. What term refers to the combined alleles of all the members of a population?

*Gene Pool*

1. What are the two main sources of genetic variation in organisms?

*Mutations and recombination events during meiosis, sexual reproduction*

1. When you graph genetic variation, what shape do you typically get?

*Bell Curve*

1. Define Speciation

*The rise of two or more species from one existing species*

1. There is a pattern in the history of life. Bursts of evolutionary activity are followed by long periods of stability. This pattern is described by the theory of…….

*Punctuated Equilibrium*

1. Define adaptive radiation

*The diversification of one ancestral species into many descendant species*

1. Remnants of organs or structures that had a function in an early ancestor

*Vestigial structures*

1. A term used to describe how well an organism is able to survive and pass its genes on to the next generation

*Fitness*

1. Similar structure, but different function. This shows an evolutionary relationship

*Homologous*

1. Similar function, but structurally very different. Does not show any sort of evolutionary relationship

*Analogous*

1. What are the 4 main principles of natural selection?

*Variation, Overproduction, struggle to survive, differential reproduction*

1. The idea that acquired characteristics are passed on to offspring was brought forth by:

*Lamarck*

1. \_\_\_\_\_\_\_ is the accumulation of differences between groups which can lead to the formation of new species

*Divergent Evolution*

1. In order for mutations to be passed on to the next generation they need to occur in the

*Egg or Sperm cells*

1. What is the process called in which individuals that are better adapted to their environment are more successful?

*Natural Selection*

1. What is an inheritable trait that increases an individual’s fitness in its environment

*Adaptation*

1. Why do we care about fossils? (in an evolutionary sense)

*Evidence that natural selection has been occurring for a long time and Small genetic changes can eventually add up to big genetic changes.*

1. Sediments and rocks pile on top of each other over time is the law of…..

*Superposition*

1. You can ESTIMATE the age of a rock with

*Relative dating*

1. \_\_\_\_\_\_\_\_\_\_\_\_ is the process whereby organisms independently evolve similar traits as a result of having to adapt to similar environments or ecological niches

*Convergent Evolution*

1. \_\_\_\_\_\_\_\_ the amount of time it takes for half of the element to decay into a different element.

*Half life*

1. The process of using parent rock composition to determine the exact age of a rock.

*Radioactive dating*

1. What is molecular evidence for evolution

*Comparing DNA or RNA to determine relationships*

1. Life slowly changes over time, at a constant and steady rate. This is known as….

*gradualism*