1. What is evolution?

**36 Week Review Packet**

Change of populations over time.

1. If there is a change in the environment, there will be a change in the traitss of the organisms that live in the environment.
2. Adaptations, can they be acquired during the lifetime of the organism? Why or why not?

No – Must be passed down

1. List the 5 major different ways scientists can support evolution with evidence. Give an example for each.
   1. Biogeography – emu ostrich
   2. DNA evidence- Bear and badger
   3. Anatomy – Homologous and analogous structures
   4. Fossil Records - Carbon dating tells us how long ago organisms existed

* 1. Embryo Evidence – Organisms develop in similar ways

1. Describe how a fossil is made.

Trace of an organism dies and then is buried. Over time its features are replaced by minerals

1. What is a phylogenetic tree? What does it tell us about the organisms and evolution?

Fossil family tree of an organism over time.

1. Define homologous structure.

Two structures that are similar based on ancestry

* 1. Give an example of a homologous structure.

Bat wing and human hand

1. Define analogous structure.

Two structures that may look similar but are not. This is because of the lack of a common ancestor.

* 1. Give an example of an analogous structure.

Moth Wing and Bird Wing

1. What how do scientists compare how closely related organisms are?

DNA comparisons.

1. Define convergent evolution

Two or more populations that develop similar traits due to similar environments

* 1. Provide an example.

Anole lizards

1. Define divergent evolution.

Two or more populations that derived from a similar ancestor based on environment.

* 1. Provide an example.

Polar bears and grizzly bears

1. Define a common ancestor.

Organism that gave rise to different species

1. What is fitness?

Probability of surviving and spreading on genes

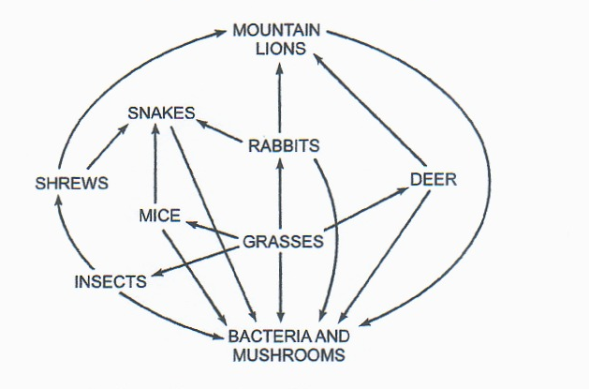
1. Changes in a group of organisms that can positively affect their fitness are called…

Adaptations

1. What role do humans play in artificial selection?

Humans select the traits that are desirable, not nature.

1. Describe the food web that you see below. List all porducers, primary consumers and secondary consumers.



1. Define producer, primary consumer and secondary consumer.

Producer – Creates their own food

Consumer – Eats plants, herbavore

Secondary Consumer - Can eat producers/consumers or just consumers

1. What does the word ethics mean?

Moral decisions made

1. What is a genetic mutation?

Change in the DNA of an organism.