**Evolution Review:**

1. Compare and Contrast gradualism and punctuated equilibrium

* **Gradualism: Short changes over a long period of time**
* **Punctuated Equilibrium: Large changes followed by periods of stability**

1. Compare analogous and homologous structures, give examples of each.

**Analogous - Different common ancestors, adapted to live in the same environment, fins of sharks/whales**

**Homologous - Same common ancestor, adapted to live in different environments, dolphin fin/human arm**

1. Describe Darwin’s contribution to science

**Traveled around the world collecting specimens to support his theory. Came up with the ideas of fitness and natural selection. Also developed thoughts on speciation using Galapagos finches as an example.**

1. Describe evolution through 5 different methods, use an example for each.

**Natural Selection – giraffe necks**

**Artificial Selection – broccoli, cauliflower, etc. derived from the same weed.**

**Sexual Selection- male peacock tail feathers**

**Genetic flow- crossing over of phenotypes to a different gene pool (one blue flower seeds finding its way into a population of red flowers)**

**Genetic drift – random selection (volcano eruption killing all black goats)**

1. Compare and contrast convergent and divergent evolution, give an example for each.

**Convergent, different ancestor adapting to similar environments - sharks/dolphins**

**Divergent, common ancestor adapting to different environments – dolphins/humans**

Define:

**Species: an population of organisms that interbreed and produce fertile offspring**

**Speciation: creation of new species from existing species**

**Niche: and organism’s habitat and how it interacts with that habitat**

**Population: a group pf organisms of the same species that in close enough proximity that they are capable of breeding with each other**

**Gene pool: a set of genes shared by a population**

**Reproductive Isolation: when two populations of the same species are prevented from breeding with each other due to physical or behavioural differences**