

Evolution Review

What is a homologous structure?

- ▶ Same evolutionary origin/ bones... different function

What is an analogous structure?

- ▶ Different origin/bones... same function

List things that provide evidence for evolution.

- ▶ Similar bone structure
- ▶ Embryos
- ▶ Fossils
- ▶ DNA

What is a vestigial structure?

- ▶ Something with no apparent use in the organism

What can we learn from the fossil record?

- After a mass extinction, new life/ species appear
- Relations between species
- Changes a species may have experienced over time
- What the Earth may have looked like long ago

What is convergent evolution?

- ▶ Unrelated species begin to appear more similar

What is divergent evolution?

- ▶ Populations begin to more different

What is a species?

- ▶ Group of individuals that look alike and who can interbreed to produce fertile offspring

What is stabilizing selection?

- ▶ Selection for the average.

What is disruptive selection?

- ▶ Selection for the extremes.

What is natural selection?

- ▶ Organisms who are best adapted to the environment survive and reproduce.

Can an individual evolve?

- ▶ No, populations evolve...NOT individuals

What causes evolution at a molecular level?

- ▶ Genetic changes from mutation and recombination

What population conditions are most likely to lead to extinction?

- ▶ Small numbers with little or no variation

What geographic isolation?

- ▶ Members of a population become separated from each other geographically and evolve

What is reproductive isolation?

- ▶ Members of a population are no longer compatible genetically

What kind of genes increase their frequency faster in a population?

- ▶ Those that are beneficial to survival

In layered rock, where would you expect to find the most complex creatures/ fossils?

▶ Top layer or most recent

If you have a small population, what can be said about your genetic diversity?

▶ It would be low

Study your vocab and the picture from ch 15,16 and 17

▶ Good luck!