

7 Populations, speciation, and evidence

– Part 2 —Answers

Answers

Work through these after you have tried the questions yourself.

2.1 a change over generations in how common each allele is (the allele frequencies) in the population.

2.2 a few bacteria carry a resistance allele and survive the antibiotic; they reproduce while the others die, so the resistant type comes to dominate the population.

2.3 they must become reproductively isolated (often separated by a barrier) and diverge until they can no longer interbreed.

2.4 any two of: fossil record, shared anatomy (homologous structures), matching DNA/protein sequences.

2.5 evolution is a change in a whole population's allele frequencies over generations; one individual's genes do not change during its life.